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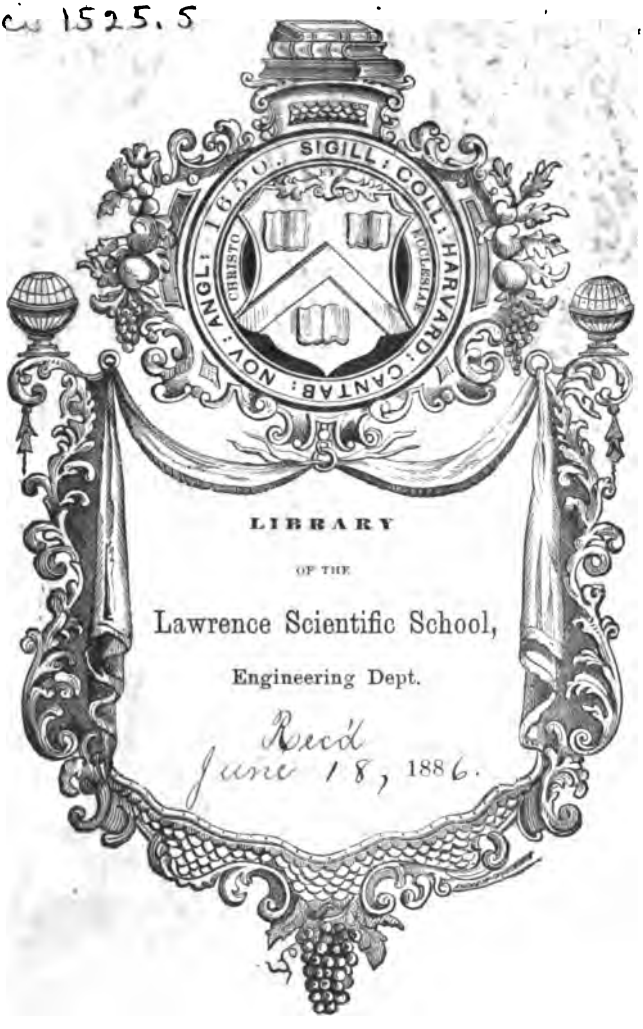

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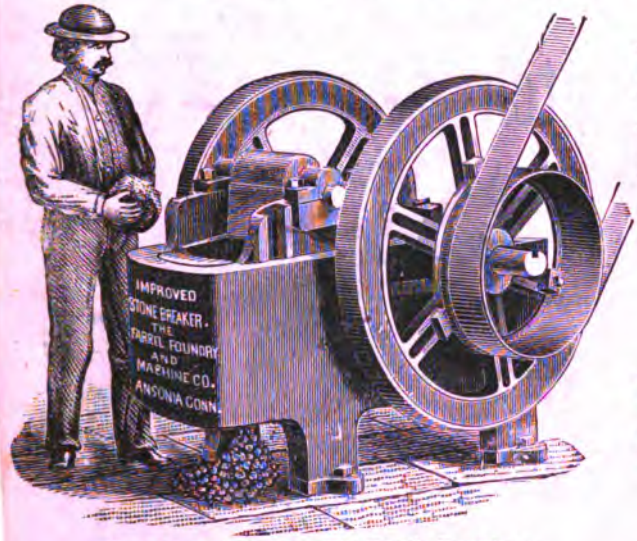

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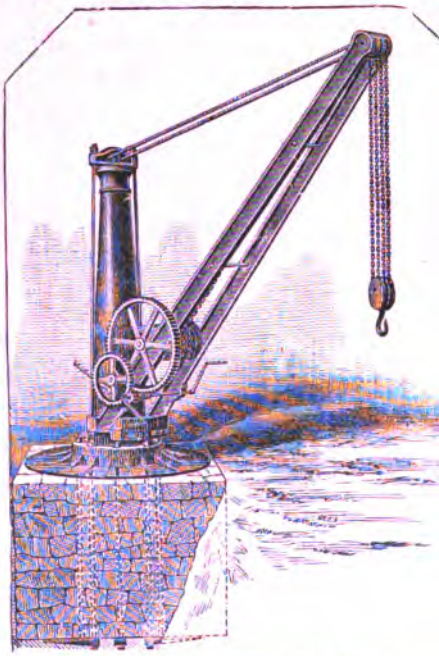

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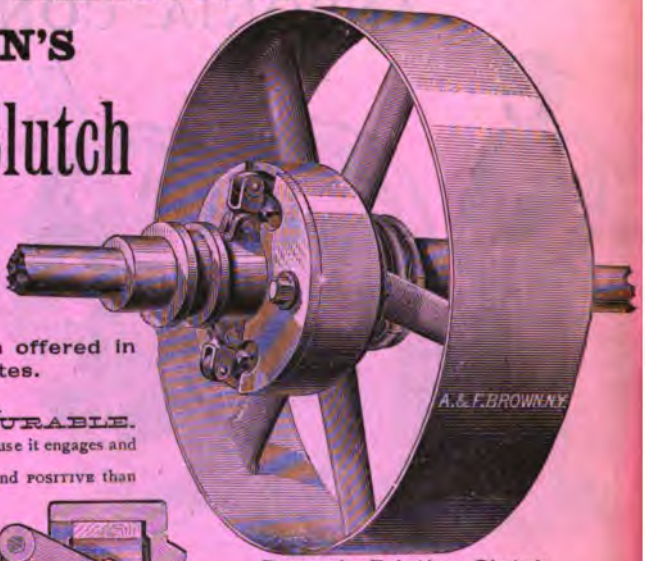

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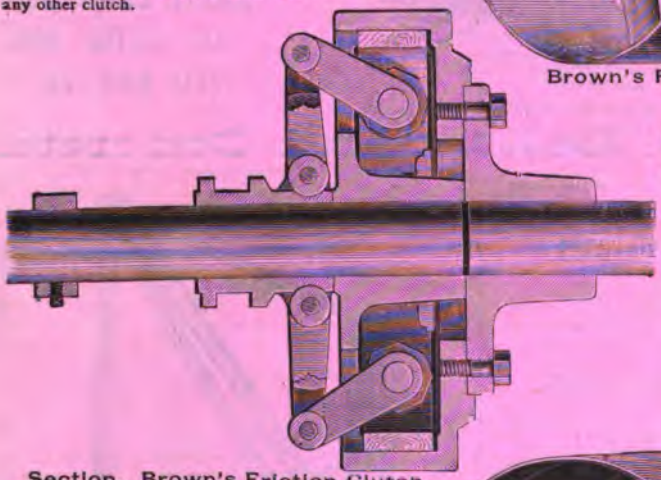

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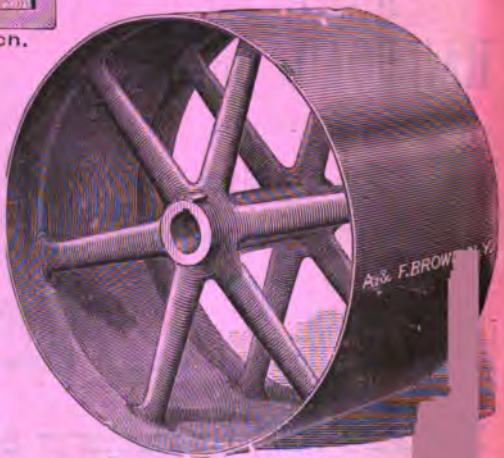

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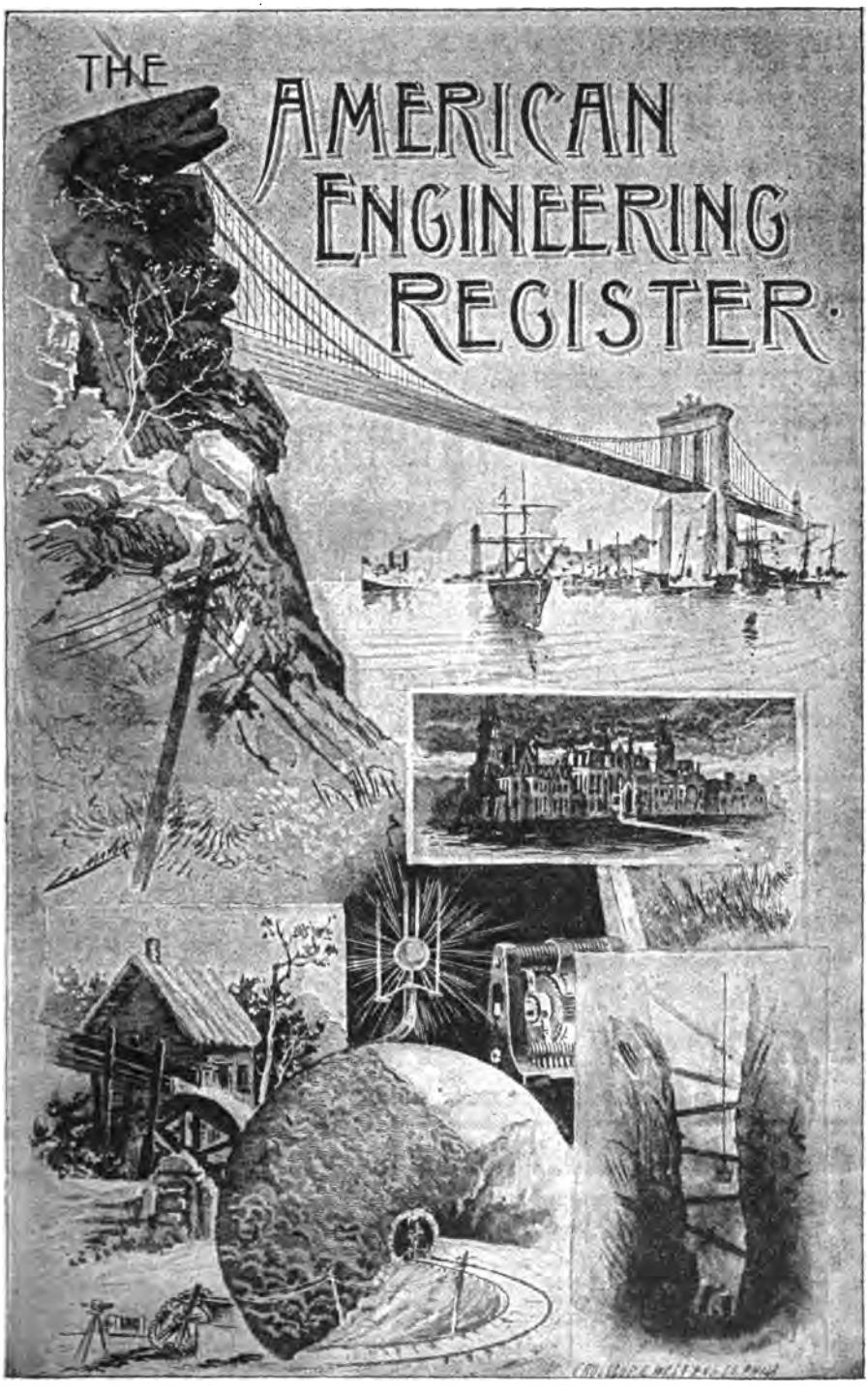

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PREFACE.

The need of some medium of communication between the large and increasing classes of engineers has frequently been felt, and yet for manifest reasons no comprehensive attempt has been made to fill it. There are, it is true, sundry local lists of engineers, in business and other directories; there are numerous special lists published by the various associations of engineers and surveyors; there are the many lists of alumni of our technical schools, and a few special directories of limited groups of engineers, but so far as we are aware it is nowhere possible to find under a single cover the desired information concerning this prominent and important class of American constructors. It has been our aim to compile such a list which shall be reasonably accurate, and correspondingly reliable and useful. How we have succeeded, it is not for us to state, further than to say that in the numerous "check" and cross-references which have been consulted, the accuracy of the Register is satisfactorily established. Doubtless mistakes will be found, and we invite and desire corrections. For this purpose a blank will be enclosed in each volume, on which we will thank our patrons to note corrections, and respectfully request them to return the same to us for use in our next edition.

TABLES AND FORMULÆ.

To render the work of still greater value, there have been added some of the fundamental formulæ in use by the several groups of engineers, and some tables, which will be found to save both time and labor.

THE CLASSIFICATION.

Many engineers are well qualified to perform the duties of several subdivisions of their profession, and would doubtless be entitled to representation under each of such headings; but to avoid multiplication of names to an unnecessary extent, these various grades are indicated by appropriate symbols in the alphabetical list, and the name is repeated once in that one of the classified lists to which it is thought most properly to belong. Under CONSULTING ENGINEERS, the subdivisions or specialties, are, in general, mentioned. In a few instances our requests for names have received no attention, and the public sources have proven very meagre, so that the lists may not represent fairly the engineers of that group. This is notably the case with SANITARY ENGINEERS. These deficiencies will be supplied as the members of these sections, realizing the importance of the work, respond to this, our personal solicitation, for information. It has also been difficult to distinguish between the mechanic and the mechanical engineer, and it is possible that some of the latter may have been omitted because of imperfect

data in the sources of our information. Such omissions will be remedied on receipt of notice.

GRADUATES (IN BUSINESS).

Those who have graduated at some technical school, and thus possess some of the requirements of the profession, even though they have subsequently adopted other pursuits, have been inserted, in justice to the schools and to the individuals; but only in the general list.

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Under this head have been placed some of the more prominent government, railroad and municipal contractors; but the larger classes of street pavers, sewer and other contractors, have necessarily been omitted.

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ARTESIAN AND OIL WELL ENGINEERS are placed under the general head of Hydraulic Engineers, where they are specified by their symbols.

The various TECHNICAL SCHOOLS which have furnished lists will be found on a succeeding page, followed by the advertisements of some of the institutions, to which special attention is called. There is also given the official titles of the ENGINEERING SOCIETIES in this country, so far as heard from, with the names and addresses of the corresponding secretaries.

The RAILROADS referred to in the general list by initials will be found under the Alphabetical List of Railroads, and Their Officials, near the end of the volume. This list is collated from the latest and most reliable sources.

Those of our readers who may desire more extended information of some of the engineers, whose names are found upon our pages, we refer, with pleasure, to the BIOGRAPHICAL DIRECTORY OF THE RAILWAY OFFICIALS OF AMERICA, containing the names and a brief sketch of some 3,764 officials, with illustrations of some of the trunk line officers. (Price $4.00.) THE OFFICIAL RAILWAY LIST, Chicago. (A valuable hand-book.) THE BIOGRAPHICAL REGISTER OF THE OFFICERS AND GRADUATES OF THE U. S. MILITARY ACADEMY, (CULLUM.) POOR'S RAILROAD MANUAL, NEW YORK. ($6.00.) THE UNITED STATES OFFICIAL REGISTER, and many others. Our acknowledgments are due in part to some of the above works, used mainly as checks, but chiefly to the various engineering societies and technical schools of the country for the care taken in preparing manuscript lists, carefully revised to date, and to our numerous correspondents.

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In these days, so full of scientific activity, and with the works of the constructor everywhere present, it would seem almost superfluous to invite attention to that body of men whose active and fertile imaginations have called into being a class of works which has contributed so greatly to promote the welfare of mankind, and yet, as in a master-piece of art or nature, it generally happens that the attention of the beholder is so absorbed in admiration of the work itself as to lose sight of its creator.

Moreover, engineers as a class, are so pre-occupied with the active duties of their profession as to leave them, in many cases, but little time even for placing on record the written or printed description of their works in detail, and much less have they the inclination to dilate upon the comprehensive effects of their labors on the physical and social world. The author has, therefore, ventured to add a few remarks in behalf of the profession.

DEFINITION.

The word engineer has, like some other words, a double signification, and is more frequently understood to apply to those mechanics whose duties pertain to the "running" of engines, whether locomotive or stationary; but in this work the term is used in its most general sense, and is intended to include *all of those persons whose lives and labors are, wholly or in part, devoted to applying the constructive resources of nature to the wants of man.*

QUALIFICATIONS.

From this definition of the class, based upon their duties, it is manifest that their qualifications must be of the highest order. They must be keen and accurate observers of facts; must be capable of deducing correct conclusions therefrom; must have a large fund of "good common sense;" an intimate knowledge of the strength and properties of the materials which enter into their structures, and which embrace most of the natural elements. They should also understand the forces and agencies of nature, and their

effects upon the durability of their works; and they must have an intimate knowledge of the character of the labor which it is proposed to employ to execute their plans in the most expeditious, economical and best manner.

HOW ACQUIRED.

Such qualifications must call into requisition all of the resources of a thorough education, and it is evident that many of these can only be developed in the school of a severe practical experience, others in the manual training schools, and still others in the more purely technical and theoretical institutions, which are doing such good work throughout the country.

FAILURES.

A large part of the life of the engineer is expended in acquiring knowledge and experience, and if by reason of imperfect data collected by himself or furnished by others, or of hidden flaws in defective material he meet with occasional failure, his colleagues, at least, will judge leniently, and thank him all the more for the lesson which his experience has given them, and by means of which they may successfully solve similar problems.

PRECEDENTS.

In engineering, as in law, precedents are of great value, yet it seldom happens that the condition of two problems are precisely similar, so that the judgment is continually exercised in rendering decisions upon which the safety of the structure may depend; yet some of the most eminent constructors of recent date have built solely upon precedent, combined with common sense.

HIS LABORS.

The men of whom we write, whose names are enrolled on the pages of this REGISTER, and their predecessors from the creation of the world, are the product of the wants of the times. They are those who have applied themselves to providing shelter and the necessaries of life; the means of abiding in one place or of readily moving to others more conducive to health, prosperity or happiness. *Habitation* and *locomotion*, are then, the objects and ends for which the engineer labors.

Under *habitations*, may be mentioned first, those intended for the *family circle*—as in homes of all sizes, styles and descriptions—from the miserable "jackal" of the "greaser" (in which every man is his own architect) to the palace of the prince, requiring the highest artistic development.

There are also needed buildings for the temporary assemblages of *persons*—as in the auditorium for lectures, concerts, amusements, religious services, &c.—all demanding special requirements, depending upon the character and purpose of the edifice.

Again, other structures must be provided for the assemblages of *things*—as in the library, cabinet, museum exhibition, mill manufactory, store, bank, &c.—all of which involve a knowledge of exacting details and the close ap-

plications of special services to the end in view. These are but a few of the duties devolving upon that class of engineers who deal more particularly with architectural structures.

LOCOMOTION.

The conditions entering into the problems of *transportation* are even more intricate and varied; yet in both the general laws and forces of statics, dynamics, hydrostatics, hydrodynamics, thermodynamics, the physical sciences generally, and a knowledge of the men and means employed in their application, are essential.

The mere enumeration of some few of the many subjects which enter into the occupations of the civil engineer will doubtless surprise those not familiar with the demands made upon him. They are, briefly, the ability to make a survey—that is, to collect data relative to existing facts, by measurements with instruments of precision. This alone involves a knowledge of standards, and numerous corrections, due to varying physical conditions—the form and dimensions of the earth, the reduction of the observations to correct mathematical equivalents, and their representation in concrete form, graphical or otherwise; the physical and chemical properties of materials; their strength; their applications, in best form and position, to bridges, tunnels, road-beds, pavements, sewers, conduits, aqueducts, locks and dams, harbor and retaining walls, breakwaters, lighthouses, moles, &c., in statical structures; and to motors on land and water, whether of steam, water, wind, compressed air, electricity or gas, in dynamics. The whole subject of the hydraulics of rivers, and the flow of fluids in open or closed channels, as applied to the various wants of mankind, should also be understood. But it is unnecessary further to multiply words even in exhibiting to the reader the extent and scope of the profession. The above will be sufficient excuse and justification, if any be needed, for the many ambitious aspirants for degrees and honors, who may abandon the course for a less comprehensive occupation.

THE PHYSICAL AGENTS entering into all construction problems are of two general classes—*natural* and *artificial*. Under the former may be placed gravity, heat, light and electricity, as affecting the elements air, earth and water; under the latter there are explosives, fuels, various chemical mixtures, numerous mechanical combinations, etc. An analysis of these agencies it is the province of the various schools to make and impart, as well as to assist the embryo engineer in arranging and assorting his data so as readily to distinguish the good from the bad, and to accept the reliable and reject the worthless. It is also of great service to him to know what has been attempted—whether or not it has failed—if so, why? what present means and appliances are available; what expedients may be safely resorted to in certain emergencies, and in general to inform himself on many other similar matters from the comprehensive libraries now attached to technical institutions, and by personal contact with instructors and constructors.

A PIONEER.

The engineer is the van-guard of civilization, whether it be in the form of a prospector for the material resources of the earth or in the domain of mind. He must be in advance of, or at least abreast with the times; never in the rear, if he would not lose his rank. He must either have invented the new systems which have done so much to elevate humanity and cheaper products, or have been able to execute such projects when conceived by others, though in so doing he may have, and often has, stood in peril of his life. History is replete with instances of tumult, arson and murder because of the attempt made at various times to introduce labor-saving machinery, or to construct a new and more speedy line of communication, to supply a community with a better light, more water, better power, &c. Every one of our readers will recall numerous cases of the opposition to every proposed change in means of transportation—from the pack-saddle through a wilderness, to turnpikes, plank-roads, tramways, canals and railroads; and in the rolling-stock, from the burro to the locomotive, or from the Conestoga to the palace sleeper.

But what has all this cost? As a tribute to the perseverence and energy of the early engineers, whose memories are still cherished, and whose works are their mile-stones, and as a finger-post for future travelers along the highway of engineering we beg leave to say that there is an experience so invariable as to be enunciated as

A LAW OF DEVELOPMENT.

The successive stages of which are marked by

Preparatory.

1. *Ignorance* on the part of the public to the project.
2. *Indifference* to the proposed benefits after they have been stated.
3. *Incredulity* by those who, knowing nothing of the resources of science, deem the scheme impracticable, or physically impossible.

Intermediate o Progressive.

4. *Argument*, which follows from the above, and other conditions.
5. *Denunciation;* after the projectors of the works have established their points.
6. *Ridicule*, when argument and denunciation fail.

Final.

7. *Violence*, the successor of 4, 5 and 6, and result of persistence in efforts to construct the work.
8. *Persecution*, sometimes even to death, from continued perseverance in the improvement.
9. *Success*, if all the above are outlived.

It is unnecessary to refer the reader to the many instances, especially in the earlier days of scientific discovery, of men who have been denounced as "insane," "mad," "gone crazy," "hobbyists," &c., who have been hunted down with pitch-forks and shot-guns, put in prisons, beaten and driven from their homes by having them burned over their heads, all because of their

devotion to a "hobby" (it may have been) which would in many cases have proven far more beneficial to their persecutors than to themselves.

To these men, whose energies have chiefly been expended in overcoming the inertia of men more than of materials, all honor is due, and to them, the present generation of engineers are largely debtors, although the same experiences are still frequently to be encountered, and are to-day being repeated in the efforts to introduce greater railroad facilities in one of the largest cities of the United States.

The greatest opponents to engineering works are *men*, (sometimes competitors and rivals) not *materials*. They should, if possible, be conciliated, for *it is generalty much easier to deflect a force than to oppose it*—to turn aside a current than to dam it back where it may gather more strength, and ultimately sweep all before it.

These also are forces and agencies which must be foreseen, and for which provision must be made just as surely as for those of a more material nature, and the greater the undertaking the greater the necessity for such precautions.

PROGRESS.

So recent are the dates connected with the successful introduction of the many great comforts and conveniences of life, that it leaves our immediate progenitors almost in the darkness of the middle ages. Thus, in America, the fuel was of wood, until about the end of the first quarter of this century. The first quarry for coal was that at Summit Hill, opened in 1792; but in the absence of means of transportation, it had no market value. In 1820 the Lehigh Coal and Navigation Company began mining and shipping coal from this quarry. The canal was opened from Mauch Chunk to Easton, 46 miles, in 1829, and extended to White Haven in 1837.

The Schuylkill canal was completed from Mt. Carbon to Philadelphia in 1825. The Union canal was opened December 30, 1827. To convey the coal from Summit Hill to water level, the Mauch Chunk (Switchback) Railroad was built and opened for use in the spring of 1827. This was a gravity road, operated first by mules, and subsequently by two stationary engines. Numerous other railroads were chartered and built in the decade from 1830 to 1840. The first American locomotives were put into use about December, 1830, on the South Carolina Railroad. They were all built for wood fuel. The first "stage" used in America is believed to have been in 1731, between Burlington and Amboy, N. J. It was merely an open box-wagon, without springs. Conestoga wagons were introduced in 1760. Springs were added in 1787, the same year in which Fitch's steamboat was made to run on the Delaware, (August 22d).

In 1795 the first turnpike (from Philadelphia to Lancaster, Pa.) was built at a cost of $465,000. The first tramroad was constructed at Lieper's quarries, in 1809. The first wire bridge in the world was that built at their mill,

at the Falls of Schuylkill, in 1816, by White and Hazard; cost, $125. The Philadelphia, Germantown and Norristown Railroad was opened on the 6th of June, 1832, and the Old Ironsides, its first locomotive, tried in September.

GAS, for illumination, was first successfully tried in the United States, in Baltimore, in 1821; in Boston, in 1822; New York, 1823; but not successfully till 1827. In Philadelphia the works were opened in 1836. Gas for fuel is only just coming into general use, yet it is *by far the most effective form in which fuel may be made available for heating or for power*, and it will be found that the development of the future will increase in proportion, as the motors are rendered cheaper, more effective, and more readily obtainable. The calorific power of wood is computed to be 6577° (F). Its observed power is 6480° for dry wood. For pure coke it is °13550 (nearly double); bituminous coal, 13692°; anthracite coal* 14200°, whilst in the form of illuminating gas the observed power is 39600°, or over six times that of dry wood. To render gaseous fuel generally available is one of the new fields open to engineers. The means of transmitting fluid power through pipes or wires also opens an extensive horizon, as in steam, gas, compressed air, and electricity.

Such are the beginnings of new eras in the domain of scientific investigations and in the utilization and application of their results to the wants of mankind. It seems scarcely credible that but little more than a half century since, there were no railroads, whilst now there are about 130,000 miles; no tunnels, whereas now their lengths amount to many hundreds of miles; no telegraph until 1844; very limited mails, and excessive rates of postage; no fuel but wood; no public conveyances worthy the name; no elevated, surface or underground railways; no attempts at municipal or sanitary engineering, which is generally regarded by a community as the last, instead of the first, of its requirements; no steamboats, no power-tools, and but little machinery. Then the farm implements were of the simplest kinds; there were no binders, harvesters and reapers, gang-plows, seeders and rakes. Then the spinning-wheel, reel and knitting needles were the predecessors of the sewing and knitting machines. Then the mining engineer groped his way laboriously through the obstructed labyrinths of his murky gangways, while the miner, with pick or hand-drill, made but a snail's pace in his contest for space or for product; now, with the electric lamp, pure air and power-drills, violent explosives and fluid motors, mountains melt to mole hills, and the physical obstruction to transportation soon becomes a plane.

These groups of a few prominent elements form a strong contrast between past and present. At the same time they illustrate some of the possibilities of the applied sciences when placed in skillful hands, and furnish a forecast

* The total coal output in the United States for 1884 was 99,851,807 tons.

of the development, which, with greatly augmented forces and resources, may be expected of the future.

DISASTERS.

Yet, in the desire for cheap homes and cheap works, avaricious men of easy consciences, have essayed to construct works without a knowledge of the materials they were handling, or with criminal negligence of the quality of their materials. Such attempts have resulted in calamitous failures, for which engineers are in no sense responsible, as in such cases it will be found that their services were either not desired, or if consulted, their advice was not followed. It is as impossible for every man to be his own engineer as it is for him to be his own lawyer or physician. It is a profession, requiring years of preparation and study, and it is one worthy of the generous recognition and patronage of the public.

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(McG. U.), Montreal, Canada (*See advertisement* Page XXII)

Pennsylvania Military Academy,
(P. M. A.), Chester, Pa., (*See advertisement* Page XXIII)

Pennsylvania State College,
(P. S. C.), Center Co., Pa., (*See advertisement* Page XXI)

Rensselaer Polytechnic Institute,
(R. P. I.), Troy, N. Y.

Sheffield Scientific School (Yale)
(S. S. S.), New Haven, Conn.

Swarthmore College,
(S.C.), Swarthmore, Del. Co., Pa., (*See advertisement* Page XXI)

Stevens Institute of Technology,
(S. I. of T.), Hoboken, N. J.

Thayer School of Civil Engineering,
(T. S.), Hanover, N. H., (*See advertisement*, Page XXI)

Towne Scientific School, University of Pennsylvania,
(U. of P.) Philadelphia, Pa. (*See advertisement*, Page XXII)

University of California,
(U. of Cal.), Berkeley, Cal.

University of Cincinnati,
(U. of Cinn.), Cincinnati, Ohio.

University of Pennsylvania,
(U. of P.), (*See advertisement* Page VIII)

Washington University,
(W. U.) St. Louis, Mo., (*See advertisement*, Page XXIII)

Western University of Pennsylvania,
(W. U. of P.), Alleghany City, Penna.

Worcester Free Institute,
(W. F. I.), Worcester, Mass.

Some few other institutions, not having kept lists of their graduates, have been unable to respond to our request, but where any of their alumni are identified from other sources, credit has been given to the college in the alphabetical lists.

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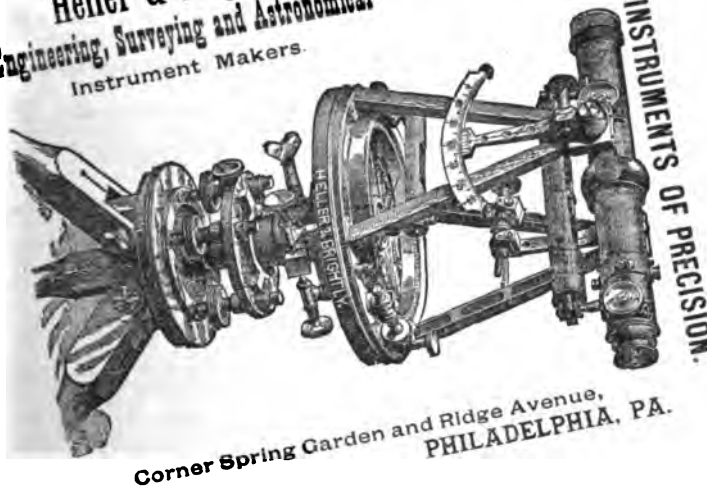

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JOURNAL

OF THE

Association of Engineering Societies,

A MONTHLY PUBLICATION,

OF THE

TRANSACTIONS OF THE ENGINEERS' SOCIETIES

OF

Boston, St. Louis, Chicago, Cleveland, Minneapolis and St. Paul.

This Journal was started in November, 1881, as a private enterprise by four of the societies named above, in order to reduce to each society t he cost of publishing its transactions, and at the same time to give to each member of each societythe publications of all.

The result is a monthly magazine of rare and valuable engineering literature.

AN INDEX DEPARTMENT has lately been added to this Journal, giving a monthly index of current engineering literature, in which a short note is added to each title, that the reader may judge of the value to him of the paper considered.

CONTENTS OF SOME RECENT ISSUES.

JANUARY, 1885.

The Earlier Floods of the Lower Mississippi, On the River and Harbor Bills of the U. S. Congress, Strength of Solid Metallic Rollers to Resist Crushing, Origin of the word Tramway, An Original Method of Finding the Length of Brace and Height and Half-length of Angle-block in the Howe Truss, Annual Report of the Chairman, Board of Managers, Inaugural Address of the President of the Western Society (Proceedings).

FEBRUARY, 1885.

Brief Sanitary Matters in Connection with Isolated Country Houses, Sewerage and House Drainage in St. Louis, On the Failure of the Columns of One of the Gas-holders of the St. Louis Gas Co., Rapid Construction of the Canadian Pacific Railway, Progress in Astronomical Telescopes, Protection Against Fire, Tunnels and Intercepting Sewers for the Sewerage of Cleveland, Note on Lowering a Large Water Main While in Use, Prof. C. A. Smith—In Memoriam (Proceedings).

MARCH, 188.5

The Separate *versus* the Combined System of Sewerage, Ventilation of Stables, The Eiccentricties of the Transit or Theodolite, and their Influences on Horizontal Angles.

APRIL, 1885.

Description of the Foundation of the Pumps and Engines at Newton, Mass., Some New Sewer Formulæ, Street Pavements in St. Louis, Treatment of Wood for Street Pavements, Hydraulic Engineering in the Soudan, Memorial of Samuel F. Johnson (Proceedings).

INDEX TO CURRENT SCIENTIFIC LITERATURE EACH MONTH.

The Index in April contains 114 titles.

Back numbers from March, 1882, are on sale at 30c. each, or at the rate of 25c. each for six or more. Subscription $3.00 a year. Advertising rates printed in each issue.

H. G. PROUT, C.E., Secretary,

18 Chambers St., N. Y. City.

FORMULÆ FOR COMPUTING QUANTITIES.

Lines.

Ratio of diagonal to side of square $1 : \sqrt{2} = 1.414 = \frac{10}{7}$ nearly.
Side of inscribed square : R :: $\sqrt{2} : 1$.
Side of inscribed equilateral triangle : R :: $\sqrt{3} : 1$.
Side of inscribed regular hexagon=R.
Side of inscribed regular decagon=0.618 R.

For any part of triangle $a : b$ or c :: sin A : sin B or sin C $\begin{cases} a, b, c = \text{sides.} \\ \text{A B C} = \text{angles opposite.} \end{cases}$

Circle.

Ratio of circumference to diameter$=3.1415926+=\frac{355}{113}=\pi$.
Circumference$=2\pi$ R,$=\pi$ D; where R=radius, D=diameter.

Length of arc$=,\frac{a\pi R}{180}$ where a=the number of degrees in the arc; or nearly$=\frac{8c'-c}{8}$; c being the chord of the arc and c' (the chord of half the arc)$=\sqrt{\frac{1}{4}c^2+\text{ver sin.}^2}$.

Diameter$(=2R)=\frac{\text{Circumference}}{\pi}=\frac{\text{Circum}}{3.1416}$

Ellipse.

Perimeter$=\frac{122}{200}\pi\sqrt{\frac{1}{2}(a^2+b^2)}$ nearly; a and b being axes.

Parabola.

Length of arc cut off by a double ordinate$=2\sqrt{y^2+\frac{4}{3}x^2}$, where y=the ordinate and x=the abscissa referred to the vertex as an origin.

Hyperbola.

Length of arc : $2y :: (19a^2+21b^2)x+15ab^2 : (9a^2+21b^2)x+15ab^2$; where x=abscissa, $2y$=double ordinate, a and b=transverse and conjugate axes respectively.

Surfaces.

1 Area of *Triangle*$=\frac{bh}{2}$ where b=base and h=height.

2 Area of *Triangle*$=\frac{ab\sin C}{2}$, a and b=sides, C included angle.

3 Area of *Triangle*$=\sqrt{s(s-a)(s-b)(s-c)}$; a, b and c=sides, s=their half sum.
1 Area of *Parallelogram*$=bh$, ; where b=base, h=height.
2 Area of *Parallelogram*$=ab\sin C$, ; a and b sides, C included angle.

3 Area of *Parallelogram*$=2\sqrt{s(s-a)(s-b)(s-c)}$=where c is the diagonal joining extremities of sides a and b, and s their half sum.

1 Area of *Trapezoid*$=\frac{b+b'}{2}h$, b and b'=parallel bases.

2 Area of *Trapezoid*$=\frac{b+b'}{2}l\sin C$; where l=length of one of the oblique sides; and C the angle between it and one of the bases.

Any *Regular Polygon*$=\frac{n\left(\frac{a}{2}\right)^2}{\tan\frac{180^\circ}{n}}$ a=length of one side. n=number of sides.

Area of *Circle*$=\pi R^2$, R= radius, $\pi=3.1416$.
Area of *Ellipse*$=\pi ab$; $2a$=transverse, $2b$=conjugate axis.
Surface of *Right Cylinder*, excluding bases$=2\pi Rh$.
Surface of *Sphere*$=4\pi R^2$.
Surface of *Zone* of two bases$=2\pi Rh$; h=height.

Surface of *Zone* of one base$=\pi c^2$ where c=the chord of the arc generating the zone.
Surface of *Right Cone*$=\pi$ R l, l=slant height of element.
Frustrum of Cone$=\pi\, l'$ (R$+r$); l'=slant height.

Volumes.

Of any *Prism*=B h, B=area of base, h=height.
Of a *Rectangular Parallelopipedon*$=a\times b\times c$=product of edges.
Of a *Cube*$=a^3$.
Of a *Cylinder*$=\pi$ R^2 h, h=height.
Of a *Pyramid*$=\frac{\text{B}\,h}{3}$, B=base, h=height.
Of a *Cone*$=\frac{\pi\,\text{R}^2\,h}{3}$, h=height.
Of a Frustrum of *any Cone*$=\frac{h}{3}$ (B$+b+\sqrt{\text{B}b}$), B and b=areas of bases.
Of a Frustrum of a *Regular Pyramid*, (same as for frustrum of cone.)
Of an *Ungula*, when the section passes through the opposite extremities of the bases$=\frac{\text{D}^2-d\sqrt{\text{D}\,d}}{\text{D}-d}$ D h .2618 where D and d=diameters of lower and upper bases, h=height.
Of the *Wedge or cuneus*$=(2\,l+e)\frac{h\,b}{6}$, where l=length of back or base and b its breadth; e=the length of the edge and h=the height.
Of the *Prismoid*$=\left\{b+r\,h')\,h'+(b+r\,h)\,h+4\left(b+r\times\frac{h+h'}{2}\right)\frac{h+h'}{2}\right\}\frac{l}{6}$; b=breadth of road-bed; h=perp. depth of cut at higher end; h'=same at lower end; l=distance between sections and r=ratio of height to base of slope.
Of the *Sphere*$=\frac{\pi}{6}$ D^3 or $\frac{4\,\pi\,\text{R}^3}{3}$; D=(2 R)=diameter.
Of the *Segment of a Sphere* $\frac{\pi}{2}$ (R$^2+r^2$) $h+\frac{1}{6}\,\pi\,h^3$, where R and r=radii of the bases and h=height. If but one base, r becomes zero.
Of the *Spherical Pyramid*$=\frac{1}{3}$ R s; s=area of spherical polygon forming the base and R=radius of sphere.
Of the *Spheroid*$=\frac{\pi\,a^2\,b}{6}$, a=the revolving, b the fixed axis.

Of the *Frustra of Spheroids.*

(A) When the ends are cut off by planes *perpendicular* to the axis of rotation$=(a^2+c^2)\frac{\pi\,l}{12}$; a=revolving axis; c=diameter of either end l=length of frustrum.

(B) When the sections are made by planes parallel to the axis of rotation and to each other$=(2\,ab+c+d)\frac{\pi h}{12}$; a and b are the diameters of the middle and c and d of the end sections.

Of the *Paraboloid of Revolution*$\frac{\text{B}\,h}{2}$; B=area of base, h=height.

Of the *Hyperboloid of Revolution* $(a+h):(a+\frac{2}{3}h)::\frac{\pi\,\text{R}^2\,h}{2}:x$; a=trans. axis of hyp, h=height, R=radius and x=required volume.

The Five Regular Solids.

Of the *Tetraedon* .11785 S$^3=\frac{\text{S}^3}{12}\sqrt{2}$.
Of the *Hexaedron*=S^3.
Of the *Octaedron*=.471404 S^3.
Of the *Dodecaedron*=7.6631 S^3.
Of the *Icosaedron*=2.1817 S^3 where S=length of one edge.
Of the *Circular Ring* D T$^2\times$2.4674 where D =exterior diameter, T =thickness of ring=(R$-r$).

STANDARD UNITS AND THEIR FUNCTIONS.

In all contracts for quantities of material there is much room for misunderstanding in the ordinary use of terms, as for instance, a ton may be 2240 or 2000 lbs; a perch, 22, 24¾ or 25 cub. ft.; a month, lunar or calendar; a year, Julian or Gregorian; a bushel, heaped or struck; a working day, 10 or 8 hours, or "from daylight 'till dark," &c. To prevent any uncertainty as to the meaning of the terms it is necessary to refer all amounts, if possible, to some invariable standard unit as a lineal, square or cubic yard or foot, a pound or an hour. There are certain conventional methods of measuring Artisans' work requiring allowances to be made for workmanship, explained hereafter.

The United States and English measure of *length* and *weight*, of the same denomination are practically equal, but there are wide differences between the same denominations of liquid and dry measure.

The British standard of length, the simple seconds pendulum, 39.1393 ins. long, having been destroyed by fire in 1834, it was found practically impossible to restore it, so that the British yard is about 1·14 of an inch in 100 ft. or 3⅔ ins. in a mile shorter than that of the United States, thus accounting for the difference between the British and American scientists' estimates of the length of a metre, a degree of longitude, a nautical mile, &c.

To convert British linear dimensions into American, multiply by 0.999942, and American into British, multiply by 1.000058.

U. S. Measures of Length.

The *standard* unit is the *yard, foot* or *mile.*

TABLE OF EQUIVALENT LENGTHS.

Ins.''	Feet (Ft.)	Yards (Yds)	Poles (Ps)	Furlongs (Fs)	Statute Miles (Ms).	League (L)
12	1.	0.333	0.0606	0.001515	0.00018939	
36	3.	1.	0.1818	0.004545	0.00056818	
198	16.5	5.5	1.	0.025	0. 003125	
7920	660.	220.	40.	1.	0.125	
63360	5280.	1760.	320.	8.	1.	
190080	15840.	5280.	960.	24.	3.	1.

Miscellaneous.

A point=1·72 of an inch. A line=6 points=$\frac{1}{12}$ inch. A palm=3 inches. A hand=4 inches. A span=9 inches. A fathom=6 feet. A cable's length=120 fathoms=720 ft.

A *statute* or *land* mile=7⅓ cables=.86755 nautical miles=1609.315 metres.

A *geographical* or *nautical mile* or "*knot*"=1 min. of longitude on the equator, at the sea level=1.152664 statute miles=1855.11 metres=2028.69 yds.=6086.07 ft.

One degree at the eq.=69.16 or 69⅙ statute miles.

One minute of *latitude* at the equator (sea level)=6046 ft.

One minute of *latitude* at the pole (sea level)=6107 ft., giving a mean of 6076½ ft. which is sometimes used.

The length of a degree of *longitude* decreases towards the poles as the cosine of the latitude and may therefore be found by multiplying 69⅙ by cos L., (or for table of computed values see Trautwine p. 75.)

For *land measures* the Gunter's chain 66 ft. long is generally used, consisting of 100 links of 7.92 inches each, but for road, railroad and canal surveys the engineer's chain of 100 or 50 ft. is taken as the unit. The parts of the Gunther's chain are,

TABLE OF SURVEYOR'S MEASURE.

Inches.	Feet.	Links.	Poles.	Chains.	Furlongs.	Miles.
7.92	0.66	1.	0.04	0.01	0.001	0.000125
198.	16.5	25.	1.	0.25	0.025	0.003125
792.	66.0	100.	4.	1.	0.1	0.0125
7920.	660.	1000.	40.	10.	1.	0.125
63360.	5280.	8000.	320.	80.	8.	1.

The *Metric System* was legalized by an Act of Congress, dated July 28, 1866, as a recognized standard of Weights and Measures in this country. The *metre* is the *unit*.

FRENCH MEASURES OF LENGTH.

Equivalents.	Millim.	Centim.	Decim.	Metre.	Decam.	Hectom.	Kilom.	Myriam.
	0.001 m.	0.01 m.	0.1 m.	1. m.	10. ms.	100. ms.	1000. ms.	10000.ms
In.	.0393704	.393704	3.93704	39.3704	393.704	&c.		
Ft.		.0328 &c.	.328087	3.28087	32.8087			
Yd.	&c.			1.09362	10.9362	109.362	1093.62	10936.2
Ms.						.06213	.6213	6.2134
						Road measures.		

TWO DIMENSIONS.

Surface Measures.

The *unit* for small areas is a *square foot*.

The *unit* for extensive areas is an *acre* or a *square mile*.

Square Measure is composed of the following equivalents:

Sq. ins.	Sq. feet.	Sq. Yds.	Poles.	Roods.	Acres.	Sq. M.
144.	1.	0.1111	0.00367	0.0000918	0.00002296	
1296.	9.	1.	0.033058	0.0008265	0.0002066	
39204.	272.25	30.25	1.	0.025	0.00625	
1568160.	10890.	1210.	40.	1.	0.25	
6272640.	43560.	4840.	160.	4.	1.	
40144896 00.	27878400.	3097600.	102400.	2560.	640.	1.

Miscellaneous.

16 sq. rods or poles=1 sq. chain. 2½ sq. chains=1 rood. 10 sq chains =1 acre.

A *Government Section* of land is one mile square and contains 1 sq. mile=27,878,400 sq. ft.=$(5280)^2$ etc.

An acre is=to a square whose side is 208.71 ft. long.

A half acre is=to a square whose side is 147.581 ft. long.

A quarter acre is=to a square whose side is 104.355 ft. long.

THREE DIMENSIONS.

Cubic or Solid Measure.

The *standard unit* for mineral substances generally is the *cubic yard.*

The *units* of capacity are; for liquids, the *gallon*, and for dry measure, the *bushel.*

Cub. Ins.	Cub. Ft.	Cub. Yds.	Cords.
12^3= 1728	1		
46656	3^3=27	1	
221184	128	4 20-27	1

Notes.

1 cord of fire wood piled, is 8 ft. long 4 ft. wide and 4 high, making 128 cub. ft.

1 chaldron of coal=57.25 cub. ft.=36 bushels heaped.

The U. S. Government Engineers generally estimate *stone* by the *cord; sand* and *earth* by the *cubic yard; timber* by the *cubic foot; sawed timber*, joists, planks, scantling, etc., by the *superficial foot board measure, b.m.* containing 144 *cub.* in.; and *iron* by the *pound.*

A *perch* of masonary by quarrymen's measure is 16½ ft. long, 1½ ft. wide and 1 ft. thick=24¾ cub. ft. in the pile. It is generally taken at 25 cub. ft.; and sometimes at 22 as in *mason's* measure, where it is 16½ ft. long, 16 ins. wide and 12 ins. high measured in the wall.

Stone walls less than 16″ thick are assumed to have that breadth in estimating workmanship. To avoid any misunderstanding, it is better to express the volumes in cubic yards or cords, which are becoming recognized standards in contract work, instead of perches as formerly.

Measures of Capacity.

The *standard units* are the *Winchester bushel* and the wine *gallon.*

TABLE FOR DRY MEASURE.

Pts.	Qts.	Pks.	Bush.
2=	1.	0.125	0.03015
16=	8.	1.	0.25
64=	32.	4.	1.

The *bushel* is a cylindrical vessel 18½ ins. in diameter and 8 ins. deep, containing 2150.42 cubic inches or 1.24446 cub. ft. of distilled water, and weighing 543,391.89 standard grains or 77.627413 lbs. Avoirdupois. When "heaped" the cone must be at least 6 ins. high making the *heaped bushel*=1¼ "struck" bushels=5 pks.=1.555 cub. ft.

The gallon in Dry Measure contains 268⅘ cub. in., but is seldom used.

TABLE FOR LIQUID MEASURE.

Gills.	Pts.	Qts.	Gal.	Hhd.	Pipes.	Tun.
4.	1.					
8.	2.	1.				
32.	8.	4.	1.			
2016.	504.	252.	63.	1.		
4032.	1008.	504.	126.	2.	1.	
8064.	2016.	1008.	252.	4.	2.	1.

Notes.

The *gallon* contains 231 cub. in. of distilled water weighing 58,372.2 grains or 8.3389 lbs. avoirdupois.

In Beer Measure 54 gallons make one hhd.

A barrel of oil contains 42 gallons.

In Massachusetts 32 gallons make a bbl. In some States 31½, and in others from 28 to 32.

A *tierce*=42 gallons and *two* tierces=one *puncheon*.

Apothecaries divide the gallon into 8 pints; the pint into 16 ounces; the ounce into 8 drams; and the dram into 60 minims or drops.

WEIGHTS.

The standard unit of weight is the pound avoirdupois; the only legalized unit is the pound Troy

Avoirdupois Weight.

Drams.	Ounces.	Pounds.	Quarters.	Cwt.	Tons.
16	1	0.625	.025	.00625	.0003125
256	16	1.	.04	.01	.0005
6400	400	25.	1.	.25	.0125
25600	1600	100.	4.	1.	.05
51200	32000	2000.	80.	20.	1.

Notes.

The *ton* of 2240 lbs., known as the *old* or *long ton* is the standard used at the custom houses of the U. S. Government, but the short ton is now the one intended unless otherwise specified. Iron is sold by the long ton.

The *avoirdupois pound* of Great Britain and the U. S. are equal to each other and to the weight of 27.7015 cub. inches of distilled water at its max. density—barometer 30 ins.—volume (3.0258 ins. ^{3}).

Troy Weight.

Grains.	Pwt.	Ounce.	Pound.
24	1		
480	20	1	
5760	240	12	1

The *pound Troy*, in both the U. S. and Great Britain, is equal to the weight of 22.7944 cub. inches of distilled water—barometer 30 inches.

It is used in weighing precious metals.

Apothecaries Weight.

Grains.	Scruples.	Drachm.	Ounce.	Pound.
20	1			
60	3	1		
480	24	8	1	
5760	288	96	12	1

The *Apothecary pound* is the same as that in Troy weight, the only difference in the table being in the subdivisions of the unit.

Divisions of Time.

Seconds.	Minutes.	Hours.	Days.	Weeks.	Julian Years.
60	1				
3600	60	1			
86400	1440	24	1		
604800	10080	168	7	1	
31557600	525960	8766	365¼	$52\frac{5}{18}$	1

The Mean Solar or Gregorian year is the interval between two successive passages of the sun over the Vernal equinox, and is=365d, 5h, 48m, 49.7sec.=the Civil Year=365.242218 days. The Gregorian Year was instituted by Pope Gregory XIII in 1582, and is now the *Civil or Legal* year. It contains 365 days for 3 successive years, and on the 4th, 366 *excepting on those centennial* years whose number cannot be exactly divided by 400. Thus the error is only 1 day in 3866 years. The Julian year contains 365¼ days, which is too great by 11m., $10\frac{8}{10}$ seconds, or 1 day in 120 years.

The *Common year* extends through 365 days from midnightDecember 31, excepting on a *leap* or *bissextile* year, when there are 366 days.

Ten years=one *decade.*

A leap year is one whose number is divisible by 4, except those divisible by 100 but *not* by 400.

A siderial year is the interval between two successive arrivals of the earth at the same point of the celestial sphere. The 1st point of Aries is usually taken[1]

A month is the interval of one lunation or 29 ds., 12 hs., 44 m., 2.84 sec., or nearly 29½ days, and is called a *lunar month*, but for business purposes the calendar months of 28, 29, 30 and 31 days are sanctioned by custom.

A *working day* for government employes consists of eight hours.* With engineers and farmers it is frequently from sunrise until sunset.

Fourteen days=one "*fortnight.*"

—Revised Statutes, § 3738. June 28, 1868. Eight hours shall constitute a day's work for all laborers, workmen and mechanics who may be employed by or on behalf of the Government of the United States.

Miscellaneous Tables.

12 units=1 doz.
12 dozen=1 gross.
12 gross=1 great gross.
1=20 units score.
24 sheets of paper=1 quire.
20 quires=1 ream.
2 reams=1 bundle.
5 bundles=1 bale.
25 lbs. of powder=1 keg.
300 lbs. cement=1 barrel.

100 lbs.=1 quintal.
3¾ cubic feet=3 bush. (struck)=1 barrel.
14 lbs. of metal=1 stone.
21¼ stones=1 pig.
8 pigs=1 fother.
18 inches=1 cubit.
30 degs.=1 Sign of the Zodiac.
12 Signs=The circle of the Zodiac.
90 degrees=1 quadrant.
60 degrees=1 sextant.

A sheet of "medium paper" 24x38 doubled once forms a *folio;* doubled twice, making four leaves, a *quarto;* double thrice, making eight leaves, an *octavo;* folded into twelve leaves, a 12mo.; into eighteen leaves, an 18mo.; and into 24 leaves, a 24mo.

* The Attorney General decided in 1877 that contracts may be made with laborers, and others for ten (10) hours per day, and that if they elect to work (8) hours they are to be paid pro rata.

APPROXIMATE EQUIVALENTS.*

LENGTH.

1 inch and	2½ centimeters,	(2.54)
1 foot "	0.3 of meter	(.3048)
1 YARD"	**0.9 " METER**	(.9144)
1 rod "	5. meters	(5.029)
1 chain "	20. "	(20.117)
1 furlong"	200. "	(201.17)
1 mile "	1600. "	(1609.3)

SURFACE.

1 sq. inch and	6¼ sq. centim's	(6.451)
1 sq. foot "	0.09 of sq. meter	(.0929)
1 sq. yard "	0.81 " " "	(8361)
1 sq. rod "	25. sq meters	(25.29)
1 sq. rood "	1000. " "	(1011.7)
1 acre "	0.4 of hektar	(.4047)
1 sq. mile "	256. hektars	(258.99)

BULK.

1 cu, inch and	16⅜ cu. centimeters	(16.387)
1 cu. foot "	0.027 cu. meter	(.028316)
1 cu. yard "	0.729 " "	(.7645)
100 cu. feet and	2.7 " "	(2.8316)
(The unit of ship's measurement for register.)		
1 cord and	3.6 cu. meters	(3.624)
1 M board meas. and	2.4 cu. meters	(2.36)

WEIGHT.

1 grain and	.06¼ of gram	(.0648)
1 Troy ounce &	30. grams	(31.103)
1 Avoir. " "	27. "	(28.35)
1 pound and	0.45 of kilo	(.4536)
60 lbs. (wheat bu.) &	27. kilos	(27.216)
80 lbs. (coal bu.) "	36. "	(36.287)
1 cental "	45. "	(45.36)
1 hundred weight "	50. "	(50.8)
1 NET TON	**" 0.9 METRIC TON**	(.9072)
1 gross ton "	1. " "	(1.016)

1 U. S. liq. pint and	0.45 of liter	(.473)
1 " " **QUART** "	**0.9 " LITER**	(.946)
1 " " gallon "	3.6 " "	(3 785)
1 peck "	9. "	(U. S. 8.81 Br. 9.08)
1 bushel "	36. "	(U. S. 35.24 Br. 36.35)
1 ton of ship's displacement "	1. cu. meter	

COMBINATIONS.

WEIGHT AND LENGTHS.		1 foot ton (net) and	0.27 of (metric) ton meter	(.2765)
		1 foot pound "	0.13½ " kilogrameter	(.13825)
WEIGHT PER LENGTH.		1 pound per running yard and	½ kilo per running meter	(.4961)
		1 " " " foot "	1½ kilos " " "	(1.4882)
WEIGHT PER SURFACE.		1 pound per sq. foot "	5. kilos per square meter	(4.883)
	About 1 atmosphere.	1 net ton " " " " / 15 pounds " " inch "	1. kilo per sq. centimeter	
		1 pound per sq. " "	0.07 " " "	(.07031)
WEIGHT PER BULK.		1 net ton " " " "	0.14 metric ton "	(.14062)
		1 pound per cu. foot "	16. kilos per cu. meter	(16.019)

Compliments of Fred'k. Brooks, C.E., Boston.

NOTES ON THE MEASURING OF ARTISANS' WORK.

Lumber is sold by the *square foot of surface one inch thick*, known as *board measure* (*b.m.*) One foot b. m. therefore contains *144 cubic inches*, which is the *unit* of measure.

If the material be more or less than an inch thick, find its cubic contents in inches and divide by 144. Should any one of the dimensions be expressed in feet, divide their product by 12; and any two dimensions expressed in feet multiplied by the third in inches will give the contents in feet b.m.

Round Timber may be measured either by the number of lineal feet of a given cross-section the stick will square; by the number of cross-ties or fence rails it will make; the number of feet b.m. it will furnish, or the amount of cord wood that may be cut from it.

All spruce and white pine spar timbers under 11 inches in diameter are called "*inch spars*;" those over it, "*piece spars*;"

For the volume of *round timber* take the girth at the middle, and multiply the square of one-fourth of it by the length. If ash or beech, deduct ½ in. from the quarter girth before squaring. for the bark, if any; and from 1 to 2 inches for oak, elm, fir, etc., according to thickness.

Hewn Timber.

Straight pieces are estimated either by the *running*, superficial or solid foot.

Wharf and crib timbers are measured on the face or upper side of the log, and sold by the superficial foot; whilst crooked, curved, and all pieces hewn to a particular shape are sold by the piece. If purchased by the government they are all measured by the solid foot. except *knees*, which are bought by the inch; ⅜ of the smallest girt of the arm in inches is considered the contents of the knee in feet.

Sawed timber=lumber, by the 1000 ft. (per M.) b. m. Keel pieces by the running foot.

Carpenters' and Joiners' Work.

Includes all the woodwork in buildings, which is usually measured by the square of 100 superficial feet.

Door and window frames, etc., are measured by the lineal foot at prices varying with the nature and amount of the work.

Partitions are measured superficially by the square, according to actual dimensions.

In roofs multiply the girth by the length of the building, both in feet, and reduce the squares.

Doors and outside shutters are estimated by the square foot and the prices regulated according to thickness, number of panels and finish.

Mouldings and *architraves*, etc., are estimated for by the lineal foot at prices varying according to the width and thickness.

Sash are measured by the *light*, according to the size of the glass and thickness of sash.

Weather boarding, by the "square" at prices varying according to the width of the boards.

Stairs are measured by the lineal foot and the price graded according to the breadth of the stairway from wall to *nosing* and to the number and height of the *risers*.

Handrails are so much per lineal foot, depending upon the material, size and finish.

Excavators' Work.

Excavators' work is estimated by the *cubic yard*, usually *in situ*, and the limits of the *lead* or haul should be stated. Beyond a certain stipulated length of lead the material is paid for both as excavation and embankment, or an allowance made for each additional 100 ft. of haul.

Trenches, for the *bed of foundation* are measured separate from the general excavation.

In dredging it is customary to measure the sand, mud, gravel, &c., in the dump scow by the displacement due to the load. For this purpose gauges are attached by an inspector who notes the effects of various weights placed in the scow by the contractor, and at his expense. The cubic contents of the scow may also be taken as the measure. Rock is computed by the cubic yard.

Clearing and grubbing by the acre; large stumps and snags by the piece, according to size.

Masons' Work.

Masons generally compute the contents of a wall in *perches* of 22 ft. All walls less than 16 ins. thick are considered of that thickness, but if more the excess is charged for. Walls having angles are measured on the outside, and for the *material* allowance is made for openings; but in computing the *work* the wall is measured as if solid when the openings are less than four feet.

Columns or blocks of stone are measured by the solid foot or piece, by chimney pieces, slabs, flags, and other flat work by the square foot.

Cut stone masonry and *coping* composed of *dimension stone* is measured before being laid.

Concrete and *rubble* are usually measured after being placed in position.

Curb stone is measured by the lineal foot, and the corner stones by the piece.

Bricklayers' Work.

The most reliable unit for masons' work is the cubic yard or the cord.

Bricklayers' work is often measured by the rod, applied only to the surface, the price being regulated by the thickness. But the dimensions of the rod being variable, as that of 16½ feet square= 272¼ sq. ft.; that of 18 ft. sq. or 324 sq. ft.; that of 16½ sq. ft. and that of 63 sq. ft., it is better to adopt the other systems of measuring *by the thousand* or by the cubic foot or yard.

The dimensions of bricks vary slightly, but a cubic foot is assumed to contain twenty bricks 8½ x 4 x2 ins.; a cubic yard, 600; and a perch of 22 feet, 500 in the wall.

When brickwork is done by the rod it should be reduced to the standard thickness of a brick and a half or "13 inches."

To find the number of bricks required for a wall of given dimensions, allow $\frac{1}{10}$ of the volume for mortar and deduct all apertures for doors and windows.

Brick work in tunnels and arches is usually measured by the cubic yard or perch of 25 feet.

It is customary to estimate the number of bricks in a wall by allowing a certain number for each superficial foot, varying with the thickness; thus a 4 inch wall contains 7 bricks per sq. ft.; a 9-inch wall contains 14 bricks per sq. ft.; a 13-inch wall contains 21 bricks per sq. ft., &c., increasing by multiples of seven. A square foot of paving takes about 5 bricks.

Plastering.

Plastering on the *flat* is usually measured by the square yard, sometimes by the "square" of 100 sq. ft. It is of two kinds, that on laths known as *ceiling*, and that on walls, as *rendering*.

Cornices, mouldings, &c., are estimated by linear measure, and an additional foot is added for each mitre. When more than 12 inches in girt, the square foot is taken as the unit.

Deduction is made for doors and windows.

One cent extra is usually allowed for each lineal foot of corners, and chimney breasts which project less than 9 inches are assumed to be of that width in measuring.

Whitening, coloring or kalsomining, are measured in the same way as plastering.

Painting.

Painters' work is computed in square yards.

Every part is measured where the color lies, and the measuring line is forced into all the mouldings and corners. It is sometimes computed by the number of pounds of paint consumed.

Double measure is allowed for carved mouldings.

Windows, sash frames, sky lights, &c., are done by the piece.

For balustrades take the length of the hand-rail for one dimension, and twice the height of the balusters upon the landing plus the girth of the hand-rail for the other.

In trellis or lattice work double the area of one side is often taken as the measure of both.

Glazing.

Glaziers compute their work by the square foot, in which case the sash is included, or by the light.

For circular and oval windows take the extreme dimensions, and their product will be the area as computed.

Roofing.

Slaters and tilers compute the contents of their work by multiplying the length of the ridge by the girth or "girt" from eave to eave.

In taking the girt for slating the line must be extended under the eaves until it meets the wall, but for tiling it is only brought to the eaves.

Double measure is allowed for hips, valleys, gutters, &c., and no deductions are made for chimneys, skylights, &c., unless expressly stipulated.

The area may be expressed in square yards or squares.

Plumbing.

Plumbers' work is estimated by the pound or hundredweight (the number of lbs. being expressed)

Paving.

Pavers' work is done by the square yard.

SPECIFIC GRAVITY.

The Specific gravity of a body is the ratio of its weight to that of an equivalent volume of distilled water at its maximum density and a barometric pressure of 30 inches.

If, therefore, the weight of a cubic foot of water, which is 1000 ounces, be denoted by w, and that of an equal volume of the body by W, the specific gravity ($\overline{S.\ G.}$) of the latter will be $=\frac{W}{w}$ From this equation we have $W=w\ \overline{S\ G}$., or the *weight* of a *cubic foot* of any body expressed in ounces, is therefore 1000 times its specific gravity; also if the weight of a cubic foot be known in ounces, the specific gravity is found by dividing by 1000.

It is only necessary, therefore, to find the weight of a volume of water equal to that of the substance whose specific gravity is to be determined. This is done by finding the weight (W) of the body in air and also (W′) its weight in distilled water; the loss (W—W′) will be the weight of the displaced equal volume of water or w'. Then the weight in air or W divided by w' will be the specific gravity as before.

As some bodies are lighter than water, or soluble in it, it is necessary, frequently, to employ an auxiliary solid whose weights both in air and water are known. This is attached to the lighter body and the compound weighed in air and water. Find the loss in weight of the light body by subtracting that of the heavy body from that of the compound, then divide the weight of the light body in air by this difference for its specific gravity.

The specific gravities of two bodies vary as the weights of equal volumes, for $\overline{S\ G}=\frac{W}{w}$ and $\overline{S'\ G'}=\frac{W'}{w}$ dividing one by the other we have $\frac{S\ G}{S'G'}=\frac{W}{W'}$ hence to find the specific gravity of a fluid, weigh a body whose $\overline{S\ G}$ is known, both in the air and in the fluid. The loss of weight will be that of an equal volume of the fluid, then as the weight of the body (W) is to the loss (W′), so is the specific gravity of the body to that of the fluid.

The annexed table will be found of value, in connection with the formulæ previously given in enabling the engineer to compute the weight or volume of various substances. It is arranged alphabetically and compiled from numerous authorities,* that it may be as complete as possible. The weights are computed from the specific gravity by multiplying by 1000 and dividing by 16 to reduce to pounds.

*v Brande, Jos. P. Cook, Haswell, Hurst, Molesworth, Spon and Trautwine.

ALPHABETICAL TABLE

OF

WEIGHTS AND SPECIFIC GRAVITIES.

A	Sp. Gr.	Weight of a cub. ft. in lbs.
Acacia wood	.750	46.5
Acetone	.792	49.4
Acid, acetic, monohydrated	1.068	66.37
" " greatest density	1.079	67.3
" arsenic	3 391	212.
" arsenious	3.782	233.
" benzoic	.667	41.7
" boracic, crystalized	1.479	92.44
" " fused	1.803	112.7
" carbonic	.00197	.123
" chlorohydric, concentrated. liquid	1.208	75.5
" citric	1.034	64.67
" cyanohydric	.696	43.5
" formic	1.116	70.
" fluoric	1.060	66.25
" hydrocloric, (muriatic)	1.200	75.00
" hyponitric	1.451	90.7
" hyposulphuric, most concen.	1 347	84.2
" molybdic	3.460	216.25
" nitric, fuming	1.451	90 7
" " of commerce	1.220	76.25
" " tetrahydrated	1.420	88.75
" oleic	.898	56.125
" phosphoric, liquid	1.558	97.37
" " solid	2.800	175.
" silicic, quartz	2.653	165.6
" " agate	2.615	163.1
" " opal sil. hydrate	2.250	140.6
" sulphuric, most concentra'd.	1.841	115.0
" sulphurous	2.210	138.1
" tannic	.....	.....
" tartaric	.....	.....
" telluric	.....	.....
" tellurous	.....	.....
Agate	2.615	163.4
Air	.001205	.075
Alabaster	2.700	168.75
Alcohol, absolute 60°	.792	49.5
" greatest density	.927	58.0
" of commerce	.834	52.1
" proof spirit	.916	57.25
Aldehyde	.790	49.4
Alder wood	.800	50.
Alum	1.714	107.1
Alumina, { corundum, sapphire, ruby, }	4.160	260.0
" emery	3.900	243.75
Aluminate of magnesia, (spinel)	3.700	231.25
" of zinc	4.700	293.75
Aluminium	2.600	162.5
Amber	1 078	67.37
Ambergris	.866	54.1
Amethyst, common	2.750	172.01
Amethyst, oriental	3.391	212.0
Amanthus, .313 to 1.000	.657	41.1
Ammónia, aqueous	.857	53.6
Antimony, cast, 6.67-6.75	6.710	419.37
" native	6.670	417.9
Apple wood	.793	49 0
Aqua fortis, double	1.300	81.25
" " single	1.200	75.00
Arragonite	2.900	181.25
Arsenic	5.673	354.6
Asbestos, starry	3.073	192.1
Ash, perfectly dry, average	.752	47.0
" American, white, dry	.610	38.15
Asphaltum, .905 to 1.65	1.277	80.0
Azure, stone	2.850	178.15
B		
Bamboo	.400	25.0
Barytes, Sulphate of 4.—4.558	4.279	267.3
" carbonate of 4.1—4.6	4.350	272.0
Barium	.470	29.4
Basalt 2.421—3.000	2.710	169.4
Bath stone (Oolite)	2.100	131.25
Baytree wood	.822	51.4
Beech " .852—.690	.771	48.2
Beech " perfectly dry	.624	39.0
Beer	1.034	64.62
Beeswax	.965	60.31
Beryl, oriental	3.594	223.4
" occidental	2.723	170.2
Bichloride of mercury	5.420	338.75
Bismuth	9.822	614.0
Bisulphide of mercury	8.124	507.75
" " tin	4.415	276.0
Birch	.567	354.4
Bitumen, liquid	.848	53.000
Blood, human	1.053	65.875
Blood, crassamentum of	1.245	77 8
Borate of magnesia, boracite	2.500	156.25
Brandy	.924	57.75
Brass (copper and zinc) cast av.	8.100	506.
" cu. 67, zinc 33 parts	7.820	488.75
" " 84, tin 16	8.832	552.0
" rolled or plate	8.380	524.0
" wire	8.214	513.4
Brick, pressed	2.400	150.0
" common, 1.367—1.40	1.633	102.1
" fire	2.201	137.6
" work in cement	1.800	112.5
" " in mortar 1.6-2	1.800	112.5
" soft	1.600	100.0
Bromine	3.00	187.5
Bronze, Cu. 8 parts, tin 1, gun metal	8.500	531.25

B	Sp. Gr.	Weight of a cub. ft. in lbs.
Bullet, wood	.928	58.0
Butter	.942	58.875
Butternut wood	.376	23.5
C		
Cadmium	8.690	543.7
Calcite, transparent 2.52–2.73	2.620	163.75
Calcium	1.580	92.5
Campeachy wood	.913	57.00
Camphor	.998	62.4
Caoutchouc (India rubber)	.903	56.4
Carbon, diamond	3.530	220.6
" graphite	3.500	218.75
Carbonate of Baryta	4.300	268.7
" " Iron (iron spar)	3.850	240.6
" " lead (white lead)	6.730	420.6
" " lime, arragonite	2.946	184.1
" " " Iceland spar	2.723	170.2
" " magnesia, giobertite	2.880	180.0
" " manganese	3.550	222.
" " strontia	3.650	228.1
Carnelian (speckled)	2.613	163.3
Cedar, wild	.596	37.25
" Palestine	.613	38.3
" Indian	1.315	82.157
Cement, Am. hydraulic Rosendale, loose	.....	60.
Cement, Am. hydraulic, well shaken	.....	70.
Cement, Am. hydranlic, thoroughly shaken	.....	80.
Cement, a struck bus. loose, 75 lbs.	.....	.....
" " well shaken, 88 lbs.	.....	.....
" " packed for sale 100	.....	.....
" 1 bbl. contains 3 struck bushels, or 3¾ cub. ft. packed	.....	.....
Cement	.....	.....
" Portland } about 110 } av.	1.300	81.25
" Roman } lbs. bush. } av.	1.560	97.25
Chalcedony, common, 2.6–2.65	2.625	164.1
Chalk, 2.252–2.657	2.454	153.4
Charcoal of pine	.441	27.562
" fresh burned	.380	23.75
" of oak	1.573	98.312
" of soft wood	.280	17.50
" triturated	1.380	86.25
Cherry	.715	44.7
" well seasoned	.672	42.0
Chestnut, perfectly dry	.660	41.25
Chromium	5.900	368.75
Chloride of ammonium (sal. ammonia)	1.520	95.0
Chloride of barium	3.900	231.5
" calcium	3.200	200.
" silver	5.548	346.75
" sodium	2.100	131.25
" potassium	1.836	114.75
Chromate of lead	6.600	412.5
" of potash	2.700	168.7
Chrysolite, 2.782–3.400	3.091	193.2
Cider	1.080	67.5
Cinnabar	8.098	506.1
" from Almaden	6.920	432.5
Citron wood	.726	45.4
Clay, dry potters, 2.8–2.1	1.900	119.
" " in loose lumps	.....	63.
Clay, with gravel	2.480	155.0
Coal, anthracite, 1.436–1.64	1.538	96.1
" a solid yard makes 1¾ yds. when broken for use	.....	.....

C	Sp Gr.	Weight of a cub. ft. in lbs.
Coal, cannel, 1.238–1.318	1.278	80.
" caking	1.277	79.8
" bituminous, 1.2–1.5	1.350	84.4
" broken, loose	.....	47.-52.
" a heaped bush. 70–78 lbs.	.....	.....
" a ton occupies from 43–48 cub. ft.	.....	.....
Cobalt	8.600	537.5
" cast	7.812	488.25
Cocoa, wood	1.040	65.0
Coke	1.000	62.5
" loose, of good coal	.....	23.-32.
" National of Va	.746	46.62
" a heaped bush., 35–42 lbs.	.....	.....
" a ton, 89 to 97 cub. ft.	.....	.....
Columbium	6.000	375.0
Concrete, mean	2.000	125.0
Copper, cast	8.788	549.25
" rolled	8.95	560.0
" wire	8.88	555.0
Copal	1.045	65.3
Coral, red	2.700	168.75
" white	2.550	160.0
Cork	.240	15.0
Cornelian	2.613	163.3
Corundum	3.710	232.0
Crab tree	.765	47.81
Cypress tree	.644	40.25
" " well seasoned	.441	27.6
D		
Deal wood, Christiana	.689	43.
Deutiodide of mercury	6.320	395.0
Deutoxide of mercury	11.000	687.5
" copper	6.130	383.12
" tin	6.700	418.75
Diamond, oriental colorless	3.521	220.1
" " colored, av.	3.536	221.0
" Brazilian	3.444	215.25
" " colored	3.550	222.0
Dog wood	.756	47.25
Dolomite, 2.54–2.83	2.685	168.0
Dragon's blood (a resin)	1.204	75.25
E		
Earth, dry common loam, loose	1.280	72.-80.
" " soil	2.194	137⅛
" loose dry	1.500	93.75
" " slightly moist	.....	70.-76.
" shaken, more "	.....	75.-90.
" fluid mud	.....	104-112
" moist sand	2.050	128⅛
" mould, fresh	2.050	128⅛
" rammed	1.600	100.
" rough sand	1.920	120.
" with gravel	2.020	126¼
Ebony, American	1.331	86⅛
" Indian	1.209	75⅛
Egg	1.090	68.0
Elker wood	.695	43.4
Elm, perfectly dry	.570	35.6
Elm	.671	42.0
Emerald	2.680	167.5
Emery	4.000	250.
Ether, acetic	0.868	54.1
" chlorohydric	.874	54.6
" muriatic	.729	45.6
" nitric	.908	56.75
" sulphuric	.715	44.7

F	Sp. Gr.	Weight of a cub. ft. in lbs.
Fat of beef	.923	57.68
" hogs	.936	58.5
" mutton	.923	57.68
Feldspar, 2.438–2.700	2.569	160.6
Filbert wood	.600	37.5
Fir, Norway	.512	32.0
Firestone	1.80	112.0
Flint, black	2.582	161.37
" white	2.504	156.5
Fluoride of calcium (fluor spar)	3.200	200.
Fluorine	1.320	82.5
Fusel oil	.808	50.5
G		
Gamboge	1.222	76.5
Garnet, precious, 4.–4.23	4.115	257 2
" common, 3.576–4	3.288	205.5
Glass, 2.50–3.45	2.975	186.0
" bottle	2.732	170.75
" common window, crown	2.520	157.5
" thick flooring	2.530	158.1
" green	2.642	165.1
" flint, 2.76–3.00	2.880	180.0
" optical	3.450	215.6
" white	2.892	180.75
Gneiss, common, 2.62–2.76	2.690	168.
" in loose piles	.....	96.
" hornblendic	2.8	175.
Granite, Egyptian red	2.654	165.9
" Patapsco	2.640	165.
" Old Dominion, Va	2.630	164.4
" Quincy	2.652	165.75
" Scotch	2.625	164.06
" Susquehanna, Pt. Deposit	2.704	169.00
Gravel, about equal to sand	1.749	109.31
Greenstone, (trap) 2.8–3.2	3.00	187.
" in loose piles	.....	107.
Grindstone	2.143	133.94
Gold, cast pure, 24 carat	19.258	1204.
" native pure	19.32	1206.
" hammered pure, 19.4–19.6	19.50	1217.
" 22 carat	17.486	1093.0
" 20 "	15.709	982.0
Gum Arabic	1.452	90.75
Gum tree, blue	.843	52.69
" water	1.000	62.5
Gunpowder loose	.900	56.25
" shaken	1.000	62.5
" solid { 1.550 / 1.800 }	1.675	104.7
Gutta percha	.980	61.1
Gypsum (plaster of Paris) av.	2.305	144.
" in lumps	.....	82.
" ground, loose (st. bush. 70 lbs.)	.....	56.
Gypsum, ground, well shaken, 80 lbs	.....	64.
Gypsum, ground, thoroughly shaken, 90 lbs	.....	72.
H		
Hackmatack wood	.592	37.00
Hazel "	.860	53.75
Hawthorn "	.910	56.87
Heliotrope (bloodstone) { 2.629 / 2.700 }	2.664	166.5
Hemlock	.368	23.0
Hickory, pig nut	.792	49.5
" shell bark	.690	43.12

H	Sp. Gr.	Weight of a cub. ft. in lbs.
Hickory, red	.838	52.375
Holly	.760	47.5
Hone, white	2.876	179.75
Honey	1.450	90.62
Honeystone or Mellite	1.620	101.25
Horn	1.689	105.56
Hornbeam, wood	.760	47.0
Hornblende	3.540	221.25
" black, 3.1–3.4	3.25	203.00
Hornstone, 2.533–2.810	2.671	167.0
Hyacinth, 4–4.78	4.390	273.1
Hydrogen gas	.000089	.0056
I		
Ice at 32° F	.920	57.5
India rubber	.903	56.437
Indigo	1.009	63.06
Iodide of potassium	3.000	187.5
" silver	5.614	350.9
" lead	6.100	381.25
Iodine	4.948	309.25
Iridium, cast by electric battery	18.680	1167.5
" hammered	23.000	1437.5
Iron, cast, 6.9–7.4	7.15	446.
" at 450 lbs. to the foot, 8601.6 cub. in. will make a ton	.....	.....
Iron, wrought, 7.6–7.9	7.77	485.
" magnetic oxide	5.400	337.5
" cast, gun metal	7.308	456.7
" hot blast	7.065	441.6
" cold blast	7.218	451.1
" wire	7.774	486.0
" rolled plates	7.704	481.15
" large rolled bars	7.69	480.
Ironstone, 3.28–3.57	3.475	217.2
Iron wood	1.15	71.
Isinglass	1.111	69.437
Ivory	1.825	114.062
J		
Jackwood	.670	42.0
Jasmine	.770	48.125
Jasper, 2.358–2.816	2.587	161.7
Jet	1.300	81.25
Juniper	0.566	35.37
L		
Lance wood	.720	45.
Larch " 5.44–5.60	.552	34.5
Lard	.947	59.2
Lead, cast	11.352	709.5
" rolled	11.388	712.0
Lemon tree	.703	43.94
Lignum-vitæ	1.333	83.31
Lime wood	.804	50.25
Lime, ordinary quick	.843	52.7
" hydraulic	2.745	171.5
" ground, loose, st. bush. 71 lb	.....	57.
" " well shaken, 80 "	.....	64.
" " thoroughly 93¾ "	.....	75.
Limestones & marbles, 2.85–2.65	2.75	172.
" one cub. yd. solid makes about 1.9 yds. loose, or 1¾ yds. piled when .571 is solid and .429 voids	.....	.....
Linden wood	.604	37.74
Lithium	.590	45.5
Locust wood	.728	45.50
Logwood	.913	57.06

M	Sp. Gr.	Weight of a cub. ft. in lbs.
Magnesia, carbonate of	2.400	150.0
" native hydrate of	2.330	145.6
Magnetic oxide of iron	5.400	337.5
Mahogany, .72-1.063	.892	55.75
" Honduras	.560	35.
" Spanish	.852	53.25
Malachite, compact	3.790	237.0
Manganese	8.000	500.0
Maple wood	.750	46.87
" bird's eye	.576	36.
Marble, Adelaide	2.715	169.68
" African	2.708	169.25
" Biscayan, black	2.695	168.43
" Carara	2.716	169.75
" common	2.689	167.87
" Egyptian	2.668	166.75
" French	2.649	165.56
" Italian, white	2.708	169.25
" Parian	2.838	177.37
" Vermont, white	2.65	165.57
Marl, mean	1.75	109.37
Masonry, of granite or limestone	.....	165.
" of well scabbled rubble, 1-5 mortar	.....	154.
Masonry, of granite, dry rubble	.....	138.
" roughly scabbled rubble ¼-⅓ mortar	.....	150.
Masonry, roughly scabbled, dry	.....	125.
" at 155 lbs. per cub. ft., a cub. yd. weighs 1.868 tons, and 14.45 cub. ft.=1 T	.....	.....
Masonry of sandstone about ⅛ less than the above	.....	.....
Masonry of brickwork, pressed, fine joints	.....	140.
Masonry of brickwork, medium	.....	125.
" " coarse, soft bricks	.....	100.
Masonry at 125 lbs. per cub. ft., a cub. yd. weighs 1.507 tons and 17.92 cub. ft.=1 ton	.....	.....
Mastic	1.074	67.125
" wood	.849	53.06
Melanite or black garnet	3.750	234.4
Mercaptan	.804	50.25
Mercury at 0°C. or 32° F	13.598	849.9
" " —40° F	15.632	977.0
" " +60° F	13.580	848.75
" " 112° F	13.37	835.6
Mica, 2.75-3.1	2.93	183.
Millstone	2.484	155.25
Milk	1.030	64.4
Mineral pitch or asphaltum, .905-1.650	1.277	80.0
Mineral tallow	0.770	48.1
Molybdenum	8.600	537.5
Molybdate of lead	6.700	418.75
Mortar, hardened, 1.4-1.9	1.65	103.
Mud, dry close	.....	80-110
" wet, moderately pressed	.....	110-130
" " fluid	.....	104-120
Mulberry wood	.561	35.06
" Spanish	.897	56.06
Myrrh	1.360	85.
N		
Naptha	.848	52.9
Nickel	8.666	541.6
" cast	8.270	517.3
Nitrate of baryta	3.185	199.1

N	Sp. Gr.	Weight of a cub. ft. in lbs.
Nitrate of lead	4.400	277.5
" potash	1.930	120.6
" strontia	2.890	180.6
Nitre	1.900	118.75
Nitrogen (about 1-35 lighter than air)	.....	.....
O		
Oak, African	.823	51.437
" Canadian	.872	54.5
" Dantzic	.759	47.43
" English	.932	58.25
" green	1.146	71.625
" heart (60 years old)	1.17	73.125
" live, green	1.26	78.75
" " seasoned	1.068	66.75
" white, dry	.860	53.75
" red, black, &c	.....	32-45
Obsidian	2.359	128.7
Oil of amber	.868	54.25
" aniseseed	.986	61.625
" sweet almonds	.932	58.25
" bitter "	1.043	65.2
" carraway seed	.904	56.5
" cinnamon	1.010	63.1
" citron	.847	53.0
" cloves	1.036	64.7
" codfish	.923	57.6
" cotton seed	.....	.....
" cumin	.969	60.6
" hempseed	.926	57.9
" lavender	.894	56.
" linseed	.940	58.75
" naptha	.848	53.0
" olive	.915	57.18
" palm	.969	60.56
" petroleum	.878	54.875
" poppy seed	.939	58.7
" rape seed	.914	57.12
" sun flower	.926	57.875
" spirea	1.173	73.3
" turpentine	.870	54.37
" whale	.923	57.68
" wormwood	.907	56.7
Olefiant gas	.00127	.079
Olive wood	.923	87.6
Oolites or roestones, 1.9-2.5	2.200	137.0
Opal, precious	2.114	132.1
" common	2.04	127.5
Opium	1.336	83.5
Orange wood	.705	44.06
Orpiment, 3.048-3.5	3.274	204.6
Osmium	10.000	625.0
Oyster shell	2.092	130.75
Oxide of bismuth	8.968	560.5
" silver	7.250	453.1
" zinc	5.600	350.0
Oxygen gas (1-10 heavier than air)	.00143	.089
P		
Palladium	11.300	706.2
" rolled	11.800	737.5
Paving stones	2.416	151.0
Pear wood	.661	41.31
Pearl, oriental, 2-51-2.75	2.630	164.4
Pearl, stone	2.340	146.2
Peat, dry unpressed	.....	20-30
Peroxide of iron	5.225	326.6
" lead	9.200	575.0

P	Sp. Gr.	Weight of a cub. ft. in lbs.
Peroxide of manganese	4.480	280.0
" titanium, rutile	4.250	265.6
Persimmon wood	.710	44.375
Peruvian bark	.784	49.0
Petroleum	.878	54.875
Phosphorus	1.770	110.6
Pine, Dantzic	.649	40.
" Memel	.550	34.3
" Riga	.466	29.0
" white, perfectly dry	.400	25.0
" " 1000 ft. b. m., weighs .930 ton		
Pine, yellow Northern, .48-.62	.550	34.3
" 1000 ft. b. m. weighs 1.276 T.		
" yellow, Southern, .64-.80	.720	45.0
" " " heart, unseasoned	1.04	65.0
Pine, pitch	1.150	71.7
Pitch	1.150	71.9
Pitchstone, 1.92-2.72	2.345	146.6
Plaster of Paris	1.176	73.5
Platinum	21.530	1342.
" wire	21.042	1315.1
" rolled	22.060	1379.
" in grains, native	17.500	1094.
" forged	20.336	1271.
Plum wood	.785	49.06
Plumbago or graphite	2.200	137.5
Pomegranate	1.351	84.62
Poon wood	.580	36.25
Poplar	.383	23.9
" white	.529	33.06
Porcelain, China	2.300	143.75
" Sevres	2.145	134.1
Porphyry, red	2.765	172.8
" Seltzer	1.003	62.7
Potassium at 59° F	.865	54.1
Powder, slightly shaken	1.000	62.5
Proof spirit	.916	56.0
Protoxide of antimony	5.778	361.0
" copper	5.300	331.2
" lead, cast	9.500	593.7
Protohcloride of mercury	7.140	446.
Protoioide " "	7.750	484.4
Protosulphide of tin	5.267	329.2
" manganese	3.950	247.0
" copper	5.690	355.6
Pummice stone, .792-.914	.883	55.2
Q		
Quartz, common pure	2.65	165.0
" finely pulverized, loose		90.
" " " well shaken		105.
" " " packed		112.
" quarried loose, 1 part solid, makes 1¼ loose		
Quince wood	.705	44.06
R		
Realgar, 3.225-3.38	3.278	204,7
Red lead	8.940	558.7
Red oxide of manganese	4.722	295.1
Resin or rosin	1.089	68.1
Rhodium	10.650	665.6
Rock crystal	2.735	171.0
Rosewood	.728	45.5
Rotten stone	1.981	123.8
Ruby	4.04	252.5
Ruthenium	8.600	537.5

S	Sp. Gr.	Weight of a cub. ft. in lbs.
Salt	2.07	129.4
Saltpetre	2.090	130.62
Sand, pure quartz, dry and loose	1.65	90-106
" struck bushel, 112-133 lbs.		
" average 98 lbs. per cub. ft.		
" a struck bush.=122½ lbs and 18.29 bush.=1 ton. A cub. yd.=1.181 tons, and 22.86 ft.=1 ton		
Sand, well shaken, st. bush. 123-147 lbs		99-117
Sand, well packed		101-119
" perfectly wet, drained off		120-140
Sandstones, for building, dry, 2.10-2.73	2 41	150.
Sandstones, piled, 1 measure solid =1¾		86
Sapphire	3.994	237.1
" oriental	4.100	256.2
Sardonyx	2.615	163.4
Sassafras wood	.482	30.122
Satin wood	.885	55.315
Scammony of Smyrna	1.274	79.6
Schorl	3.170	198.1
Sea water	1.026	64.1
Selenium	4.400	275.
Selenite of lead	7.690	480.6
Serpentine, 2.264-3.00	2.634	164.6
Sesquioxide of manganese	4.810	306.2
Shale, red or black	2.600	162.5
Shingle, (pebbles and sand)	1.420	88.7
Silicate of zirconia		
Silver, pure cast	10.474	654.6
" hammered	10.511	686.9
" glance, 5.2-7.2	6.25	390.6
Slate, 2.672-2.90	2.791	173.2
" purple	2.784	174.
" drawing	2.110	132.
Smalt	2.440	152.
Snow, freshly fallen		5 to 12
" compacted by rain		15-20
Soapstone or steatite, 2.65-280	2.73	170.
Soap	1.071	66.9
Sodium at 59° F	.972	60.75
Spar, fluor 3.094:3.791	3.442	215.1
" feld	2.700	168.75
" calc, 2.62-2.837	2.729	170.6
Spelter or zinc, 6.8-7.2	7.000	437.5
Spermaceti	.943	58.937
Spruce	.500	31.25
Stalactite. 2.323-2.546	2.434	152.1
Starch	.950	59.37
Steam	.0088	.055
Steel, 7.8 to 7.9	7.85	490.0
" plates	7.806	488.
" soft	7.833	489.6
" tempered and hardened	7.818	488.6
" wire	7.847	490.4
Stone, Bath, Eng	1.961	122.56
" Blue Hill	2.640	165.
" Bluestone (basalt)	2.625	164.
" Breakneck, N.Y	2.704	169.
" Bristol, Eng	2.510	156.8
" Caen, Normandy	2.076	129.75
" common	2.520	157.5
" Craigleth, Eng	2.316	144.75
" grind	2.142	134.0
" Kentish rag	2.651	165.6
" Kips bay, N. Y	2.759	172.
" Norfolk, Parliament house	2.304	144.
" Portland, Eng	2.368	148.

* See Gen. Q. A. Gillmore's Report on the Strength and Specific Gravity of Building Stones.

S	Sp. Gr.	Weight of a cub. ft. in lbs.
Stone, rotten	1.981	123.8
" sandstone (mean)	2.400	150.0
" Sydney	2.237	139.8
" Staten Id., N.Y.	2.976	186.
" Sullivan Co.	2.688	168.
Strontium	2.540	158.7
Sugar	1.606	100.4
Sulphate of Baryta, (heavy spar)	4.700	293.7
" strontia (celestine)	3.950	247.0
" lead	6.300	393.7
" silver	5.340	333.7
" lime (anhydrite	2.900	181.2
" " gypsum	2.305	144.0
" potash	2.400	150.0
" soda, anhydrous	2.630	164.4
Sulphide of antimony	4.334	270.9
" bismuth	6.540	408.7
" carbon	1.263	789.4
" lead, galena	7.580	473.7
" molybdenum	4.600	287.5
" silver	7.200	450.0
" zinc (blende)	4.160	260.
Sulphur, native	2.086	130.4
" fused	1.990	124.4
Sycamore wood	.623	39.0
T		
Talc, mean	2.800	175.0
" black	2.900	181.25
Tallow	.940	58.6
Tamarack tree	.383	23.93
Tar	1.00	62.25
Teak, African oak, 6.57-7.45	.701	43.8
Tellurium	6.110	382.0
Thalium	11.850	740.6
Tile	1.815	113.4.
Tin, Cornish hammered	7.390	462.0
" " pure	7.291	455.7
Topaz (oriental)	4.011	250.7
Tourmaline	3.210	200.6
Trap	2.720	170.0
Tungsten	17.600	1100.0
Turf, or peat dry and unpressed	.....	20-30
Turquoise. 2.50-3.00	2.750	172.0

U	Sp. Gr.	Weight of a cub. ft. in lbs.
Ultramarine	2.360	147.5
Uranium	18.23	114.8
V		
Vine wood	1.327	83.0
Vinegar, 1.013-1.080	1.047	65.5
W		
Walnut wood	.671	41.937
" " black	.500	31.25
Water, pure rain or distilled, at 32°	.....	62.37
" " " " 60°	1.000	62.331
" sea	1.026	64.1
" Dead Sea	1.248	78.0
" Meditteranean	1.029	64.3
Wax, bees	.965	60.5
" shoemakers	.897	56.1
Whey, cows	1.019	65.0
White oak, upland	.687	42.9
" James River	.759	47.3
Willow, .585-.486	.535	33.4
Wine, Bordeaux	.993	62.1
" Burgundy	.991	62.0
" white champagne	.997	62.3
" Constance	1.081	67.6
" Madeira	1.038	65.0
" Malaga	1.022	64.0
" Port	.997	62.3
Wolfram	7.119	445.
Woodstone, 2.045-2.675	2.360	147.5
Y		
Yew, Dutch	.788	49.2
" Spanish	.807	50.4
Z		
Zeolite	2.40	150.0
Zircon	4.542	284.0
Zinc, cast	6.861	428.8
" rolled	7.191	449.4

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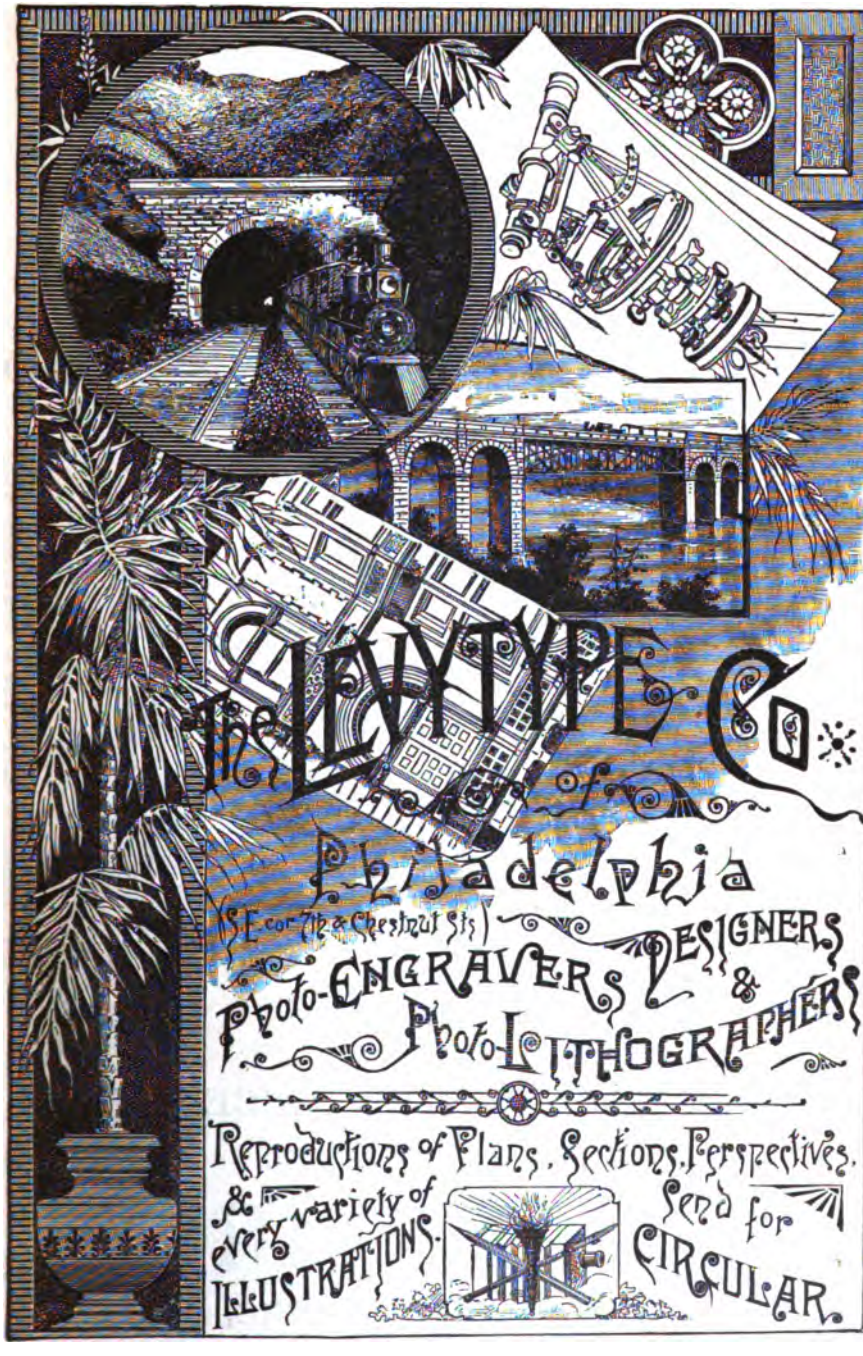
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LIST.

ABBREVIATIONS.

A., Architect. **Am.**, American. **Agr.**, Agriculturalist. **Art'n.W.B.**, Artesian Well Borer.

B., Bridge. **B.B.**, Bridge Builder. **B.C.E.**, Batchelor Civil Eng. **B.E.**, Bridge Engineer. **Blk.**, Block. **B.M.**, Batchelor Metallurgy. **B.S.**, Batchelor Science. **Bu.**, Bureau.

C.E., Civil Engineer. **Ch.E.**, Chief Engineer. **Ch'g.**, Charge. **City E.**, City Engineer. **City S.**, City Surveyor. **Co. S.**, County Surveyor. **Comd'g.**, Commanding. **Comm'd.**, Commissioned. **Con. E.**, Consulting Engine. **Cont.**, Contractor. **(Cor. U.)**, Cornell University. **(C.S.S.M.)**, Colorado State School of Mines.

D., Drawing. **(D.C.)**, Dartmouth College. **D.E.**, Dynamical Engineering. **D.R.M.**, Division Road. Master. **Div. E.**, Division Engineer. **D'pt.**, Department. **Drft's.**, Draughtsman.

E., Engineer. **Ed.**, Editor. **E.M.**, Mining Engineer. **El. E.**, Electrical Engineer. **Exp.**, Expert **(F.Am.S.C.E.)**, Fellow, Amer. Soc. of C. E.

G.E., Gas Engineer. **G.M.**, General Manager. **G.M.M.**, General Master Mechanic. **G.M.C.B.**, General Master Car Builder. **G. Supt.**, General Superintendent. **Geol.**, Geologist.

(H.U.), Harvard University. **Hydg.**, Hydrographer. **Hydl. E.**, Hydraulic Engineer.

(I.I.U.), Illinois Industrial University. **Insp.**, Inspector. **Instr.**, Instructor.

(L.C.), Lafayette College. **L.E.**, Landscape Engineer. **(L.U.)**, Lehigh University.

M., Manager. **M.C.B.**, Master Car Builder. **M.M.**, Master Mechanic. **(M.A.G.L.A.)**, Member Am. Gas Light Association. **(M.A.I. of El.E.)**, Member American Institute of Electrical Engineers. **M.E.**, Mechanical Engineer. **(M.I. of T.)**, Mass. Institute of Technology. **(M.S.C.)**, Maine State College. **(M.T.S.)**, Manuel Training School. **(M.U.)**, Michigan University. **Mach**, Machine. **Ma.E.**, Marine Engineer. **(McG.U.)**, McGill University. **Mch't.**, Merchant. **M'fr.**, Manufacturer. **Mn'g.**, Mining.

P., President. **(P.C. of P.)**, Polytechnic College of Phila. **Ph.B.**, Batchelor Philosophy. **Pl.**, Place. **(P.M.A.)**, Penna. Military Academy. **(P.S.C.)**, Penna. State College. **P.Ass't.E.**, Passed Assistant Engineer. **Pr.**, Principal.

(R.P.I.), Rensselaer Polytechnic Institute. **Res.E.**, Resident Engineer. **R.M.**, Road Master.

(S.C.), Swarthmore College. **(S.I. of T.)**, Steven's Institute of Technology. **S.E.**, Sanitary Engineer. **S'p'l.**, Special. **Supt.**, Superintendent. **Supv.**, Supervisor. **Surv.**, Surveyor.

Tel'g., Telegraph. **Tel'p.**, Telephone. **Tpgr.**, Topographer. **(T.S.)**, Thayer School of Civil Engineering.

(U. of C.), University of California. **(U. of Cinn.)**, University of Cincinnati. **(U. of P.)**, University of Pennsylvania. **U.S.C.&G.S.**, U. S. Coast & Geodetic Survey. **U.S.Dep'ty.Surv.**, U. S. Deputy Surveyor. **U.S.E.**, U. S. Corps of Engineers. **(U.S.M.A.)**, U. S. Military Academy. **U.S.N.**, U. S. Navy. **U.S.O.**, U. S. Ordnance Corps.

V.P., Vice President.

W.W., Water Works. **(W.F.I.)**, Worcester Free Institute. **(W.U.)**, Washington University. **(W.U., of P.)**, Western University of Penna. **W'ks.** Works.

EXPLANATION.

N.B.—The following order is observed in the record:

The **name** and initials; the **degree** or title, when given; the **date** of graduation followed by the initials of the **institution**, in brackets; the present **occupation** and the **address**.
Thus: A——, M.N., C.E., '80 (U. of P.) Asst. E., P.R.R., 233 S. Fourth st. Phila.

For **names** of railroads, see the Alphabetical List of Railroads and their Officials, near end of volume.

A.

Aa
Aarber, L. M., C.E., Hope Valley, R. I.
Ab
Abadie, E. R., C.E., '72 (W. U.) Con. E. M., New Almaden, Cal.
Abbe, C. C., M.E., Supt. Starch Works, Des Moines, Iowa.
" J. R., M.E., 9th and Spruce sts., St. Louis.
Abbey, C. E., C.E., Chicago.
Abbott, A. V., E.M., 311 Broadway, New York.
" E., C.E., Cordova, Ill.
" E. L., Hydl. E., Ch. E. Water Works, South Bend, Ind.
" E. T., C.E., Hennepin Bl'k, Minneapolis, Minn.
" F. V., 1st Lt. U.S.E., '79, Charleston, S.C.
" I., C.E., '81 (M. I. of T.) B.E., Asst. E. Dominion B. Co., Montreal, Can.
" J., Surv., Pointville, N. J.
" J. E., Cont., 725 Grove st., San Francisco.
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TABLE SHOWING THE RELATIONS BETWEEN POPULATION AND RAILROAD MILEAGE.

States etc., in order of density of population to the square mile.	1 Area in square miles.	2 Population in 1880. U. S. Census.	3 Population per sq. mile. Ratio of cols. 1–2	4 Approx mileage in 1884.	5 Miles of R.R. per. sq. m. of area 1884.
1 Wyoming Ty.	97,890	20,789	0.21	625	.006
2 Montana "	146,080	39,159	0.27	1041	.007
3 Arizona "	113,020	40,440	0.36	876	.008
4 Idaho "	84,800	32,610	0.38	818	.009
5 Nevada "	110,700	62,266	0.56	948	.009
6 New Mexico Ty.	122,580	119,565	0.90	1153	.009
7 Dakota "	149,100	135,177	0.91	2731	.012
8 Indian "	64,690	68,000	1.05	353	.005
9 Washington "	69,180	75,116	1.08	534	.008
10 Utah "	84,970	143,963	1.81	1131	.014
11 Colorado	103,925	194,327	1.87	2871	.028
12 Florida	58,680	269,493	4.57	1308	.022
13 California	158,360	864,694	5.46	2933	.018
14 Minnesota	83,365	780,773	9.35	4250	.051
15 Kansas	82,080	996,096	12.13	4116	.050
16 Arkansas	53,850	802,525	16.76	1759	.033
17 Louisiana	48,720	939,946	19.29	1323	.027
18 Maine	33,040	648,936	19.64	1143	.034
19 Wisconsin	56,040	1315,497	23.29	4261	.076
20 Mississippi	46,810	1131 597	24.18	1841	.040
21 Alabama	52,250	1262,505	24.19	2151	.041
22 West Virginia	24,780	618,457	24.95	1013	.041
23 Oregon	96,030	174,768	25.32	1180	.012
24 Georgia	59,475	1542,180	26.00	2988	.050
25 North Carolina	52 250	1399,750	26.79	1982	.038
26 Michigan	58,915	1636,937	27.95	5249	.090
27 Iowa	56,025	1624,615	28.98	7453	.133
28 Missouri	69,415	2168,380	31.24	4731	.070
29 South Carolina	30,570	995,577	32.56	1561	.051
30 Vermont	9,565	332,286	34.73	937	.099
31 Virginia	42,450	1512,565	35.63	2693	.061
32 Tennessee	42,050	1542,359	36 67	2178	.052
33 New Hampshire	9,305	346,991	37.28	1042	.110
34 Kentucky	40,400	1648,690	40.81	1888	.046
35 Illinois	56,650	3077,871	54.33	9033	.160
36 Indiana	36,350	1978,301	54.39	5567	.153
37 Nebraska	76,855	452,402	58.86	2844	.037
38 Texas	265,780	1591,749	59.89	6075	.023
39 Delaware	2,050	146,608	71.52	307	.150
40 Maryland	12,210	934,943	76.56	1111	.091
41 Ohio	41,060	3198,062	77.89	7340	.180
42 Pennsylvania	45,215	4282,891	94.72	7528	.166
43 New York	49,170	5082,871	103.37	7371	.150
44 Connecticut	4,990	622,700	124.79	973	.192
45 New Jersey	7,815	1131,116	144.75	1890	.242
46 Massachusetts	8,315	1783,085	214 08	1197	.240
47 Rhode Island	1,250	276,531	221.22	211	.170
48 Dist. of Columbia	70	177,624	2537.50	21	.286
	3,019,140	50,155,983	Av. 16.61	124,529	Av. .041

States arranged according to value in column 6.	6 Pop. to each l. mile of RR cols. 2/4.
1 Wyoming Ty.	35
2 Montana "	39
3 Idaho "	39
4 Arizona "	47
5 Dakota "	49
6 Nevada "	66
7 Colorado "	68
8 New Mexico Ty.	104
9 Utah "	127
10 Washington "	141
11 Oregon	148
12 Nebraska	159
13 Minnesota	186
14 Indian Ty.	193
15 Florida	206
16 Iowa	219
17 Kansas	242
18 Texas	262
19 California	292
20 Michigan	306
21 Wisconsin	311
22 New Hampshire	333
23 Illinois	341
24 Vermont	355
25 Indiana	355
26 Ohio	436
27 Arkansas	456
28 Missouri	458
29 Delaware	477
30 Georgia	516
31 Connecticut	540
32 Virginia	562
33 Maine	567
34 Pennsylvania	569
35 Alabama	587
36 New Jersey	598
37 West Virginia	610
38 Mississippi	615
39 South Carolina	638
40 New York	689
41 North Carolina	700
42 Tennessee	708
43 Louisiana	710
44 Maryland	841
45 Kentucky	878
46 Massachusetts	893
47 Rhode Island	1310
48 Dist. of Columbia	8458
	Av. 402.9

DEDUCTIONS.

From this exhibit it appears that in 1884 on the basis of the population of '80, there were 400 persons to the lineal mile of R.R., and 41 lin. mls. of R.R. to 1000 sq. mls., taking the U. S. as a unit. The average population per sq. mi. was 16.6—about that of Arkansas.

Col. 6 shows the Territories and States which have a less population per lin. mile than the average to be those to No. 26, Ohio, whilst those above the average run from 26, to 48. Again, in Penna. there are 94.72 persons to the sq. mile, and 0.166 miles of R.R. to the same area or 569 persons to the lineal mile of R.R.; whilst in N. Y. there are 103.37 persons to each sq. m., and 689 to each lineal mile; hence for similar conditions we would expect the latter State to add to its mileage rather than the former.

A comparison of cols. 3 and 5 will show the relation between the population and mileage. The data in this table may be applied to the solution of many interesting questions.

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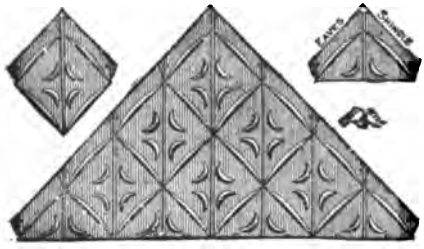

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Egan, J. J., 142 "
Eidlitz, C. L. W., 128 Broadway, N. Y. C.
" L., "
Eisen, T. A., 240 Montgomery st., San Fran.
Ellicott, J., 68 Madison st., Baltimore.
Elwell, A. J., Woonsocket, R. I.
" J. A., "
Ely, E.F., A., '82 (M.I. of T.) Instr. A., (M. I. of T.), Boston.
Emerson, W. R., 5 Pemberton sq., Boston.
Emmert, G., Jr., 921 "F" st., Wash., D. C.
Ender, J. S., City Hall, Chicago.
Enos, B. V., 29 Talbot st., Indianapolis, Ind.
Eppendorff, J. G., A., '83 (M. I. of T.), 111 Broadway, N. Y. C.
Evans & Hollowell, 204 S. 5th st., Phila.
" D., "
" H. H. C., 507 Baronne st., New Orleans.
" T. D., 606 Smithfield st., Pittsburgh.
Everett, A. G., 6 Beacon st., Boston.
" O., 126 Kearney st., San Francisco.

F.

Farmer, H., 18 Broadway, N. Y. C.
Farnsworth, J. M., 140 Nassau, st., N. Y. C.
Fassett, F. H., Portland, Me.
Faxon, J. L., 7 Exchange pl., Boston.
Fehmer, C., 87 Milk st., Boston.
Fernbach, H., 346 Broadway, N. Y. C.
Ficken, H. E., 19 W. 22d st., N. Y. C.
Fiedler, A., 143 Lasalle st., Chicago.
" T. O., 276 W. Randolph st., Chicago.
Fields, W. & Son., 12 Wall st., N. Y. C.
Files, R. T., 98 Travers st., Boston.
Fink, W. A., Reading, Pa.
Firth, H., 115 Monroe st., Chicago.
Fisher, A. B., Burlington, Vt.
Fitch, J. H., Lexington, Mass.
Fitzner, W., 31 Carondelet st., New Orleans.
Flanders, J. J., 173 Lasalle st., Chicago.
Fludder, J., Newport, R. I.
Foltz, F., 80 Dearborn st., Chicago.
Footman, F. N., 13 Exchange pl., Boston.
Ford, P. W., 33 School st., Boston.
Formachon, M., 154 Nassau st., N. Y. C.
Foster, N. G., 83 Cedar st., N. Y. C.
Fox, J. A., 12 P. O. sq., Boston.
Fraiser, T. N., 1031 Mifflin st., Phila.
Frank, J., 2834 Wentworth ave., Chicago.
Franklin, J. B., 115 Waverly pl., N. Y. C.
" W. W., 5th & Race sts., Cincinnati.
Fraser, J., 1420 N. Y. ave., Washington.
" W. H., 151 Monroe st., Chicago.
" W.S.,Liberty&Smithfield sts., Pittsburgh.
Frederick, G. A., 25 N. Charles st., Baltimore.
" W. C., 278 N. Carey st., Baltimore.
Freeman, G. A., Jr., 54 W. 23d st., N. Y. C.
Freret, J., 25 Commercial st., New Orleans.
" W. A., 61 Camp st., New Orleans.
Frey, L., 42d & Lake sts., Chicago.
Friebus, G., 1218 21st st., Washington., D. C.
Friedrick, E. S., 323 "E" st., Washington.,D. C.
Frink, A., 28 State st., Boston.
Frommann, E., 95 5th ave., Chicago.
Frost, C. S., 49 Washington st., Chicago.
Frotscher, O., 1510 Chestnut st., Phila.
Fuller, G. A., 2 Wall st., N. Y. C.
" G. F., 18 Pemberton sq., Boston.
" W. D., 5 Hamilton st., Baltimore.
Furber, P. P., A., '77 (M.I. of T.), 322 Pine st., St. Louis.
Furlong, T. J., 5th & Olive sts., St. Louis.
Furness & Evans, 209 S. 3d st., Phila.
Furst, K., 106 5th ave., Chicago.
Furth, T., 152 John st., Baltimore.

G.

Gains, W. G., 411 N. 9th st., St. Louis.
Gandolfo, E., 31 Union sq., N. Y. C.
Gardiner, W. H., 1364 Washington ave., N.Y.C.
Garnsey, G. O., 184 Dearborn st., Chicago.
Garratt, W. J., 138 Tremont st., San Francisco.
Gash, J., San Francisco.
Gaynor, J. P., 399 California st., San Francisco.
Geddes, C., 528 California st., San Francisco.
Geissinger, W. H., 411 Chestnut st., Phila.
Gellfuss, H., 33 Kearney st., San Francisco.
Gendell, D. S., 2219 Chestnut st., Phila.
George, T. I., 70 Saratoga st., Baltimore.
Germuiller, J., 517 7th st., Washington., D. C.
Gette, W., 402 Crown st., Phila.
Ghequier, T. B., 49 St. Paul st., Baltimore.
Gibson, J., 823 E. Main st., Richmond, Va.
Gilbert & Thompson, 51 New st., N. Y. C.
" B. L., 187 West st., N. Y. C.
Gile, J. H., 59 William st., N. Y. C.
Gillman, A., 71 Broadway, N. Y. C.
Givens, J. W., 614 St. Charles st., St. Louis.
Goddard, G. H., 529 Golden Gate ave., San Francisco.
Goesse, B. J., 520 Pine st., St. Louis, Mo.
Gosling, J., 724½ Market st., San Francisco.
Gott, J. C., 25 N. Charles st., Baltimore.
Gottig, C. H., 125 Clark st., Chicago.
Gottle, J., 437 Baymiller st., Cincinnati.
Grable, A., 315 Olive st., St. Louis.
Graham, C., Wilmington, Del.
" C. & Sons., 395 E. 43d st., N. Y. C.
" C. G., Wilmington, Del.
Graves, H., 15 Congress st., Boston.
Gray, W. B., 47 Corcoran Bld'g., Wash., D. C.
Grees, E. W., 408 E. 9th st., N. Y. C.
Griffin, T., 172 Washington st., Boston.
Grimm, N., 169 S. Eutaw st., Baltimore.
Grotlisch, W. E., 45 Montauk Bl'k., Chicago.
Gruwe, E., 160 Fulton st., N. Y. C.

H.

Haight, C. C., 111 Broadway, N. Y. C.
Hale, W. G., 917 Chestnut st., Phila.
Hall, C. A., 12 Market sq., Providence, R.I.
" H. P., 11 Pemberton sq., Boston.
" J. R., 4 P. O. sq., Boston.
Hallberg, L. J., 70 Ashland Bl'k., Chicago.
Haller, N. T., 1234 9th st., Wash., D. C.
Hallett, W. F., 80 Cedar st., N. Y. C.
Hallowell, L. M., 906 Walnut st., Phila.
Hamilton & Pistor, 35 Broadway, N. Y. C.
" F. F., 318 Pine st., Phila.
" S., Jr., E. M., '76 (Co. C.) 35 Broadway, N. Y. C.
Hampel, F., 7 W. 14th st., N. Y. C.
Hannaford, S., 37 Johnson Bld'g., Cinn., O.
Hansen, C. O., 86 Metropolitan Bl'k., Chicago.
Haraguchi, H. N., 67 Ashland Bl'k., Chicago.
Harding, G. E., 40 Exchange pl., N. Y. C.
" G. M., 257 Washington st., Boston.
Harkness, J. C., 916 N. Y. ave., Wash., D. C.
Harned, H. P., 126 Dearborn st., Chicago.
Harney, G. E., 149 Broadway, N. Y. C.
Harrison, H. G., 67 Williams st., N. Y. C.
" J. F., 23 Broadway, N. Y. C
Hartwell, E. G., A., '79 (M. I. of T.), 68 Devonshire st., Boston.
" H. W., 68 Devonshire st., Boston.
Haskell, C. H., 9 Hubbard st., Chicago.
" G. C., 151 N. Paca st., Baltimore.
Hastings, S. D., 115 Broadway, N. Y. C.
Hatfield, A., 2 Stone st., N. Y. C.
" O. P. & R. F., 31 Pine st., N.Y.C.
Hatherton, E. A., 33 Ann's Bld'g., San Fran.
Hathone, G., 54 William st., N. Y. C.
Havens, C. J., 103 Post st., San Fran.
Hawkins, J. H. W., Wilkesbarre, Pa.
Hawley, H., 39 Nassau st., N. Y. C.
Hazard, J. C., 22 N. Church st., N. Y. C.
Hazelhurst & Huckel, 508 Walnut st., Phila.
Hazlett, Wm., M. E., '78 (L. U.) 3 W. 30th st., N. Y. C.
Hebberd, C. E., 33 Broadway, N. Y.C.
Heins, G. L., A., '82 (M. I. of T.) 33 E. 17th st., N. Y. C.
Henriksen, B. E., 218 Post st., San Fran.
Herthel, J. W., 221 Olive st., St. Louis.
Hewes, S. C., 45 Montauk Bl'k., Chicago.
Hewett, W. D., 310 Chestnut st., Phila.
" G. W., 310 Chestnut st., Phila.
Higgings, A. S., A., '78 (M. I. of T.) 130 Court st., Boston.
Higham, W. R., Richmond, Va.
Hill, H. W., 84 La Salle st., Chicago.
" J. G., 1424 N. Y. ave., Wash., D. C.
Hillert, F., 620 Washiugton st., St. Louis.
Hine, C., 45 Montauk Bl'k., Chicago.
Hinsdale, W. R., 67 Carondelet st., New Orleans, La.
Hoagland, W. C. 432 Montgomery st., San Francisco.
Hobbs, I. H. & Son, 520 Walnut st., Phila.
Hodgdon, G., 15 7th ave., Pittsburgh.
Hodgson, E. J., 37½ W. Wash. st., Indianapolis.
Hoffman, H. C., Liverpool, Pa.
" V., 529 Kearney st., San Fran.
Hoffmann, J., 153 4th ave., N. Y. C.
Holabird, W., 7 Montauk Bl'k., Chicago.
Holby, H. H., 111 Broadway, N. Y. C.
Hoover, W. H., Duluth, Minn.
Hoppen, H., 63 Westminster st., Providence, R.I.
Hornblower & Marshall, Vernon Row, Washington, D. C.
" J. C., Ph. B., '69 (S. S. S.) Vernon Row, Washington, D. C.
Houpt, M. D., Wilkesbarre, Pa.
Huber, J. H., 78 Dearborn st., Chicago.
" J. P., 249 Chicago ave., Chicago.

Hubert, Pirsson & Co., 19 E. 28th st., N. Y. C.
Huebner, H. R., 95 E. Wash. st., Indianapolis.
Huerne, P., 126 Kearney st., San Francisco.
Hume, W., 2733 Prairie ave., Chicago.
" W. H., 2 W. 9th st., N. Y. C.
Hunt, R. M., 154 Nassau st., N. Y. C.
Hurd, F. W., 35 Congress st., Boston.
Husband, J. J., 31 St. Paul st., Baltimore.
Huss, G. M., 50 Union sq., N. Y. C.
Huston, A., 400 Chestnut st., Phila.
" W. R., 46 Lexington st., Baltimore.

I.

Ipsen, L. S., 131 Devonshire st., Boston.
Isaacs, H. J., 6th & Locust sts., St. Louis.

J.

Jackson, T. R., 61 Broadway, N. Y. C.
" W. E., 506 Walnut st., Phila.
Jacoby, L. S., Allentown, Pa.
Jacques, H., 6 Beacon st., Boston.
Jaffray, H. S., 155 Washington st., Chicago.
Jannssen, E. C., 506 Olive st., St. Louis.
Jardine, D. & F., 1262 Broadway, N. Y. C.
Jebson, E. J., 95 5th ave., Chicago.
Jenison, E. S., 151 Monroe st., Chicago.
Jenness, W. L. B., 2 Lakeside Bld'g., Chicago.
Johnson, L., 431 Walnut st., Phila.
" O., 177 Lasalle st., Chicago.
Jones, G., Jr., 505 Arch st., Camden, N. J.
" R. C., 42 Broad st., N. Y. C.
" W. H., 3 State st., Boston.
" W. J., 18 W. 4th st., Cinn. O.
Jose, S. H., 76 Cross, Portland, Me.
" W., 52 Bible st., N. Y. C.
Judd, O., 567 S. Halsted st., Chicago.
Jungenfeld, E., 919 Olive st., St. Louis.

K.

Kafka, H., 725 Sansom st., Phila.
Karls, T., 164 Lasalle st,, Chicago.
Kastner, J., 744 Broadway N. Y. C.
Kellogg, C. W., 3002 Wentworth st., Chicago.
Kelly, S. D., 209 Washington st., Boston.
Keltenich, F., 78 5th ave., Chicago.
Kendall E. H., 71 Broadway, N. Y. C.
Kenitzer, C. W., 601 California st., San Fran.
" H., 601 California st., San Francisco.
Kennedy, R. G., 735 Walnut st., Phila.
" T. C., 41 Lexington st., Boston.
Kenney, J., 122 Tradd st., Charleston S. C.
Kent, E. A., Ph. B., '75 (S.S.S.), 274 Delaware ave., Buffalo, N. Y.
Kenway, H. P., 220 Devonshire st., Boston.
Kerby & Archer, 191 Broadway, N. Y. C.
Kerr, J. W., 83 4th ave., Pittsburgh.
Kessell, C., 97 Glark st., Chicago.
Ketchum, E. H., C.E., '73 (D.C.), Indianapolis, Ind.
Kidd, J. T., 531 California st., San Francisco.
Kidder, F. E., C.E., '79 (M.S.C.), Boston.
Kilburn, H. F., 229 Broadway, N. Y. C.
Kimball, C. H, 180½ Middle st., Portland, Me.
Kimbell & Wisdell, 824 Broadway, N. Y. C.
King, T. J., 1320 Penna. ave., Wash., D. C.
Kirchner, W. H., 620 Chestnut st., St. Louis.
Kledus, L., 515 Market st., St. Louis.
Kley, H. T., 153 Milwaukee st., Chicago.
Knapp, H. G., 46 W. 23d st., N. Y. C.
Knox, J. M., 83 4th ave., Pittsburgh.
Koelkebeck, C. W., M.E., Camden, N. J.
Koenig, O. P., 722 N. 4th st., St. Louis.
Kramer, O., 29 S. 4th st., St. Louis.
Kreitler, H., 33 Broadway, N. Y. C.
Krug, G. H., 310 Chestnut st., Phila.
Kuhles, W., 111 Broadway, N. Y. C.

L.

Ladd, J. G., Newport, R. I.
Lafield, J. G., 13 Exchange pl., Boston.
Laing, C. W., 79 Dearborn st., Chicago.
" J., 51 N. Calvert st., Baltimore.
Lamb & Rich, 486 Broadway, N. Y.
Lane, J. C., 100 29th st., Chicago.
Langworthy, L. P., Providence, R. I.
Lautrup, P. C. 159 Washington st., Chicago.
Laver, L., San Francisco.
Lebrun, W. & Son., 24 Park pl., N. Y. C.
Lederle & Co., 196 Broadway, N. Y. C.
Ledvina, G. E., 4th & Market sts., St. Louis.
Lee, F. D., 417 Olive st., St. Louis.
Leech, J. P., Indiana, Pa.
Legg, J. B., 5th & Olive sts., St., Louis.
Legondre, E., 619 Montgomery st., San Fran.
Leighton, A. V., 26 Montgomery st., San Fran.
Leinbach, G. W., 74 Dearborn, st., Chicago.
Leonard, H. R., Leonard & Son., San Fran.
" H.R., Jr., Leonard &Son., San Francisco.
Lewis, E. J., Jr., '81 (M. I. of T.), Drft's, Dorchester, Mass.

Lewis, G. W., 28 School st., Boston.
" J., 36 Montauk Bl'k., Chicago.
" W. W., 5 Pemberton, sq., Boston.
Lewitz, P., 171 E., 5th st., Cincinnati.
Lienman, D., 111 Broadway, N. Y. C.
Lindsey, Ed. D., 32 Liberty st., N. Y. C.
Linfoot, B., 719 Walnut st., Phila.
Littell, E. T., 48 Exchange pl., N. Y. C.
Little, A., 70 Kilby st., Boston.
" W. P., E.M., (Co.C.), 60 W. 40th st., N. Y. C.
Logee, R., 139 Fulton st., N. Y. C.
Lohman, C. E., 89 Randolph st., Chicago.
Longhurst, W., 123 Madison st., Chicago.
Lord, G. C., 19 Exchange pl., Boston.
" J. B., 121 E. 23d st., N. Y. C.
Loring, G. F., 53 Tremont st., Boston.
Love, G. W., Unionville, Pa.
Lowry, T., 1519½ N. 8th st., St. Louis.
Luce, C., Newport, R. I.
" C. S., Newport, R. I.
Lueders, F. R., 724½ Market st., San Fran.
Lummis, W. W., 48 Congress st., Boston.
Lutgers, A. C., 331 Montgomery st., San Francisco.
Lybrock, A., Richmond, Va.
Lynch, A. B., 89 Randolph st., Chicago.
Lyon, A., 335 Wabash ave., Chicago.

M.

Macy, H. C., 120 Sutter st., San Francisco,
Manchester, R., 35 Weybosset st., Providence.
Marble, O., 142 Gravier, st., New Orleans.
Maritzen, A., 2554 Cottage Green ave., Chicago.
Marquis, J., 39 Sutter st., San Francisco.
Marriott, W. H., 44 E. Townsend st., Balto.
Marshall, H. R., 74 Wall st., N. Y. C.
" J. R., 945 Penna. ave., Washington, D. C.
" J. W.. 112 5th ave., N. Y. C.
Martens, L., 36 La Salle st., Chicago.
Marvin, C. D., 45 Exchange pl., N.Y.C.
Mason, G. C., Newport, R. I.
Masters, G. A., 78 Monroe st., Chicago.
Matz, O. H., 80 La Salle st., Chicago.
Maurice, J. H., 111 N. 7th st., St. Louis.
Maxon, C. C., Westerly, R. I.
May, C. F., 5th & Olive sts., St. Louis.
Mayers, P., 111 Hayes st., San Francisco.
Maymiche, R., 15 Cortlandt st., N. Y. C.
McArthur, J., Jr., City Hall, Phila.
McCafery & Buckley, 810 4th ave., N. Y. C.
McCollough, H., 23 S. Gilmore st., Balto.
McConnell, J., 119 Water st., Pittsburgh.
McDougall, B., 330 Pine st., San Francisco.
" C. C., 330 Pine st., San Francisco.
McElfactrick, J. B., 602 Walnut st., St. Louis.
" J. M., 602 Walnut st., St. Louis.
" W. H., 602 Walnut st., St. Louis.
McGrath, J., 506 Olive st., St. Louis.
McGurk, B., 610 6th ave., N. Y. C.
McIntyre, J. B., 309 E. 82d st., N. Y. C.
McKay, H. S., 73 Green st., Boston.
McKean, J. S., 3573 Cottage Green ave., Chicago.
McKim, Mead & White, 57 Broadway, N. Y. C.
McLaughlin, A. B., 327 Mulberry st., Baltimore.
" E. J., 6116 Centre st., Pittsburgh.
" J. W., 47 Johnson bldg., Cinn., O.
McLennan, J. A., 83 Metropolitan Bl'k., Chicago.
McMamara, J. H., 322 N. 3d st., St. Louis.
Meacham, G. F., 93 Water st., Boston.
Meagher, P. A., 506 Olive st., St. Louis.
Meissner, H., 829 Milwaukee st., Chicago.
Melcher, H. N., 310 Cedar st., St. Louis.
Meriam, A. L., 151 Monroe st., Chicago.
Merrill, J. H., 603 1st st., Wash., D. C.
Merritt, M. C., 1267 Broadway, N. Y. C.
" W. J., 115 Broadway, N. Y. C.
Merry, F. C., 11 Broadway, N. Y. C.
Meyers, J. G., 711 "G" st., Washington, D. C.
Miller, C. C., 173 La Salle st., Chicago.
" C. L., 520 Pine st., St. Louis.
" D. K., 525 Smithfield st., Pittsburgh.
" D. R., Harrisburg, Pa.
" G. H., 230 Montgomery st., San Fran.
" J. F., 67 Liberty st., N. Y. C.
Mills, A. L., 4th and Market sts., St. Louis.
Mitchell, H. D., 328 Montgomery st., San Francisco.
" J. F., 212 N. 3d st., St. Louis.
Mittendorfer, M. V., 150 Broadway, N. Y. C.
Moeser, H., 54 6th st., Pittsburgh.
Moffette, G., Jr., 16 Pemberton sq., Boston.
Molera, E. J., 820 Van Ness st., San Francisco.
Mook, R., 176 Broadway, N. Y. C.
Moore, F. H., 33 School st., Boston.
" J. H., 173 La Salle st., Chicago.
" W. P., 330 Pine st., San Francisco.
Mooser, W., 302 Montgomery st., San Fran.
Moran, T. J., 102 S. 5th ave., N. Y. C.
Morris, M. W., 45 Enchange pl., N. Y. C.
Morse, A. C., 5 Custom House st., Providence, R. I.
Morsell, S. T. G., 921 "M" st., Wash., D. C.
Mortimer, E., 520 Pine st., St. Louis.
Mould, J. W., 36 Union sq., N. Y. C.
Moulton, G. M., 1545 Clark st., Chicago.
" J. T., 1545 Clark st., Chicago.
Mueller, C., 95 E. Washington st., Indianapolis, Ind.
Mullett & Steinmetz, 61 Broadway, N. Y. C.
" A. B., 1411 "F" st., Washington, D. C.
Muncks, L. A., Jr. 306 Lexington st., Balto.
Murdoch, J., 52 Lexington st., Baltimore.
Murphy, J., 120 N. Main st., Providence, R. I.
Myers, R. W., 351 E. 61st st., N. Y. C.

N.

Namur, A., 52 Wall st., N. Y. C.
Nash, A. C. 51 W. 4th st., Cinn., O.
Neilson, J. C., 46 St. Paul st., Baltimore.
Nesbit, J. C., Lewisburg, Pa.
Neumann, A. & Co., 64 Astor House, N. Y. C.
Newcomb, E. A. P., 5 Pemberton sq., Boston.
Newington, H. W., '81 (W.U.), Instr. Drawing, (W.U.), St. Louis.
Newson, J. C., 504 Kearney st., San Fran.
" J. J., 431 California st., San Francisco.
" S., 504 Kearney st., San Francisco.
Newton, D., Newport, R. I.
Nickerson, E. A., Providence, R. I.

O.

O'Conner, L. J., 111 Broadway, N. Y. C.
" P. J., 640 Market st., San Francisco.
O'Reilly, Bros., 110 E. 45th st., N. Y. C.
Oakey, A. F. & Co., 4 W. 14th st., N. Y. C.
Ober, J. F., 15 Pemberton sq., Boston.
Ogden, A. B., 409 E. 53d st., N. Y. C.
Oothout, E. A., E.M., '82 (Co. C.), 18 Broadway, N. Y. C.
Ord, J., 2 Merrick st., Phila.
Orth, G. S., 605 Smithfield st., Pittsburgh.
Osborn, J. W., Shannondale, Pa.
Otter, J., 2 Clark st., Chicago.
Owens, B. B., Lexington & Charles sts., Balto.

P.

Page, G. W., 328 Washington st., Boston.
" H. L., 47 Corcoran Bld'g., Washington, D. C.
Palmer, C. M., 204 Dearborn st., Chicago.
" H., 56 Wall st., N. Y. C.
Paris, W., 1411 "G" st., Washington, D.C.
Parker, C. E., 39 Court st., Boston.
Pashley, A. F., 94 La Salle st., Chicago.
Patton, N. S., 115 Dearborn st., Chicago.
" W., 411½ California st., San Fran.
Peabody, R. S., 60 Devon st., Boston.
" R. S., 36 Montauk Bl'k., Chicago.
" W. B., 82 Water st., Boston.
Pearson, G. T., 427 Walnut st., Phila.
Peebles, A., 514 Market st., Pittsburgh.
Peipers, H. E., 520 Pine st., St. Louis.
Pelham, G. B., 56 Wall st., N. Y. C.
Pelton, J. C., Jr., 230 Pine st., San Fran.
Penner, B., 143 La Salle st., Chicago.
Pennington, J., 54 Lexington st., Baltimore.
Pentecost, D. S., 79 Dearborn st., Chicago.
" S. A., 79 Dearborn st., Chicago.
Percy, G. W., 318 Pine st., San Francisco.
Pettit, H., 209 S. 3d st., Phila.
Pfeiffer, A., 891 3d ave., N. Y. C.
" C., 71 Broadway, N. Y. C.
Phelan, J., Jr., 23 Parkin st., Baltimore.
Phillips, H. A., '73 (M.I. of T.), B.E., Boston, B. W'ks. 353 Marlborough st., Boston.
Phipps, S., 17 Pemberton sq., Boston.
Pierce, O. J., 153 La Salle st., Chicago.
Piket, L., 230 Cutter st., Cinn., O.
Pipe, G. W., 506 Olive st., St. Louis.
Pissis, A., 217 Sansom st., San Francisco.
Pistor, W., E.M., '68 (Co. C.), 32 Broad st., N. Y. C.
Pitcher, H., 520 Pine st., St. Louis.
Pitney, O. L., 1313 "F" st., Washington, D. C.
Placey, O. H., 113 Adams st., Chicago.
Plympton, L. V., 4th & Race sts., Cinn., O.
Poindexter, W. M., 701 15th st., Wash., D. C.
Pope, F., 209 Washington st., Boston.
Portois, P., 519 Montgomery st., San Fran.
Post, G. B., 15 Cortlandt st., N. Y. C.
Potter, W. A., 121 E. 23d st., N. Y. C.
Powell, W. B., P.R.R., 233 S. 4th st., Phila.
Prague, J. G., 47 Bible House, N. Y.
Praray, C. A., Woonsocket, R. I.
Preston, H. J., 8 Exchange pl., Boston.
" J., 186 Devonshire st., Boston.
" W. G., 186 Devonshire st., Boston.
Price, B., 28 W. 23d st., N. Y. C.
" B. D., 1026 Arch st., Phila.
" F. L., 731 Walnut st., Phila.
" W. L., 731 Walnut st., Phila.
Pugin & Walter, 68 Wall st., N. Y. C.
Purdy, W. S., 149 Broadway, N. Y. C.
Pursall, I., 1420 Chestnut st., Phila.
Putnam, J. P., 4 Pemberton sq., Boston.

Q.

Quackenboss, L. G., 86 Washington st., Chicago.

R.

Rae, R., Jr., 97 Clark st., Chicago.
Raeder, F. W., 322 Pine st., St. Louis.
Raht, E. E., 154 Nassau st., N. Y. C.
Ramsey, C. K., 620 Chestnut st., St. Louis.
Rand, G. D., 28 School st., Boston.
Randall, G. P., 45 Montauk Bl'k., Chicago.
Randolph, S. M., 51 Lakeside bldg., Chicago.
Rapp, G. W., 5th & Walnut sts., Cinn., O.
Ray, W. A., 184 Howe st., Chicago.
Read, C. H., Jr., 714 15th st., Washington, D.C.
Reed, S. B., Joliet, Ill.
Rehwoldt, H., 113 Madison st., Chicago.
Renick, F. A., 506 Olive st., St. Louis.
Rice, J. H., M.E., '75 (W.F.I.), 79 Milk st., Boston.
" L. F., C.E., '58 (R.P.I.), 9 Pemberton sq., Boston.
Rich, C. A., C.E., '75 (D.C.), 346 Broadway, N. Y. C.
Richards, J. R., 44 Court st., Boston.
" T. W., Prof. A., (U. of P.), 3332 Chestnut st., Phila.
" W. P., 44 Court st., Boston.
Richardson, W. C., 68 Devonshire st., Boston.
Richter, T. A., 5th & Walnut st., Cinn., O.
Ricker, N. C., Prof. A., (I.I.U.), Campaign, Ill.
Ridder, C. F., 264 W. 46th st., N. Y. C.
Rinn, J. P., 194 Washington st., Boston.
Ritch, J. W., 29 Nassau st., N. Y. C.
Roach, M., 3200 Dearborn st., Chicago.
Roberts, E, L., 155 Broadway, N. Y. C.
Robertson, R. H., 121 E. 23d st., N.Y.C.
Robinson, G., Jr., 178 E. 125th st., N.Y.C.
Roche, W., 57 Mantauk Bl'k., Chicago.
Rodgers, J., 115 Nassau st., N. Y. C.
" R. E., 115 Nassau st., N. Y. C.
" W. A., 47 Lafayette pl., N. Y. C.
Romeyn, C. W., 206 Broadway, N. Y. C.
Roney, C. H., 15 S. 7th st., Phila.
Root, J. W., 115 Dearborn st., Chicago.
Rosenstock, R., 123 E. 125th st., N. Y. C.
Rossiter & Wright, 149 Broadway, N. Y. C.
Rotch, A., 85 Devonshire st., Boston.
Ruehl, P. W., 565 Canal st., Chicago.
Rumbaugh, M., 84 Johnston bldg., Cinn., O.
Rust, F., City Hall, Pittsburgh.
Rutz, W. E., 116 Canal st., N. Y. C.

S.

Sargent, E. A., 58 Cedar st., N. Y. C.
Saunders, G. H., 418 California st., San Fran.
Savage, W. F., 25 Main st., Boston.
Sawtelle, F. J., Providence, R. I.
Saxe, S. P., 81 Clark st., Chicago.
Schaper, W. C., 1931 Franklin st., St. Louis.
Schaub, L. J., 43 Ashland Bl'k., Chicago.
Scheidl, C., '76 (Ind. S. of Augsburg), Drft's., Phœnix B. Co., Phœnixville, Pa.
Schellenger, G. A., 125 Broadway, N. Y. C.
Scherrer, A., Indianapolis, Ind.
Schickel, W., 346 Broadway, N. Y. C.
Schmidt, F., 317 Broadway, N. Y. C.
" P. R., 103 Post st., San Francisco.
Schneider, E. E. W., Erie, Pa.
Schneider, T. F., 933 "F" st., Wash., D. C.
Shock, T. R., 81 Clark st., Chicago.
Schoen, P. P., 744 Broadway, N. Y. C.
Schott, E., 122 Broadway, N. Y. C.
Schroeder, H., 456 North ave., Chicago.
" R. E., 80 La Salle st., Chicago.
Schrop, W., 219 Sansome st., San Francisco.
Schropper, A., 5 Turk st., San Francisco.
Schultze, P., 25 Corcoran bldg., Wash., D. C.
Schureman, D. S., 988 Central ave., Cinn., O.
Schwarzmann, H. J. & Co., 154 Nassau st., N. Y. C.
Schweinfurth, C. L., 71 Broadway, N. Y. C.
Schwestzer, B. J., 76 St. John st., N.Y.C.
Searle, H., 204 1st st., Washington, D. C.
Seeds, J. R. D., Wilmington, Del.
" W. F., Wilmington, Del.
Seibert, C., 624 E. Broad st., Richmond, Va.
" S. R., 613 15th st., Washington, D. C.
Shaw, G. R., 17 Congress st., Boston.
Sheldon, F. P., 65 Westminister st., Providence, R.
Shipman, S. V., 160 La Salle st., Chicago
Sierks, H., 89 Randolph st., Chicago
Sill, C. B., C.E., '72 (Cor.U.), Pittsburg
Sillman & Farnsworth, 140 Nassau st., N. Y. C
Silloway, T. W., 71 Green st., Boston.
Sillsbee, J. L., 53 Lakeside Bldg., Chicago,
Simmons, S. T., 701 Washington st., St. Louis.
Simonds, W. F., 810 4th ave., N. Y. C.
Singer, R. R., C.E., '77 (R.P.I.), 83 Water st., Pittsburgh, Pa.
Slack, R. H., 31 Pemberton sq., Boston.
Slade, J. M., 110 Leonard st., N. Y. C.
Slicer, W. G., 714 Chestnut st., St. Louis.
Smith & Barnes, 202 Broadway, N. Y. C.
" & Howe, 7 Warren st., N. Y. C.
" & Kelly, 1215 Broadway, N. Y. C.
" A., 151 Monroe st., Chicago.
" C. H., 33 Broad st., N. Y. C.
" F. J., 98 Broad st., Charleston, S. C.
" O. F., 20 Court st., Boston.
" W. F., 318 Pine st., San Francisco.
" W. H., 1215 Broadway, N. Y. C.
" W. W., 7 Wall st., N. Y. C.
Smithmeyer, J. L., 703 15th st., Washington.
Smyth, D., 48 Exchange pl., N. Y. C.
Snead, W. R., A., '81 (M.I. of T.), 318 W. Chestnut st., Louisville, Ky.
Sneden, R. K., 56 Wall st., N. Y. C.
Snell, G., 15 Studio Bld'g., Boston.
Sniffin, E., 317 Broadway, N. Y. C.
Snook, J. B., 12 Chambers st., N. Y. C.
Snyder, W. A., 322 California st., San Fran.
Sperry, J. B., 55 N. Charles st., Baltimore.

Speyer, J., 135 Madison, st., Boston.
Spor, G. S., 249 Chicago ave., Chicago.
Starbuck, H. F., 96 Ashland Bl'k., Chicago.
Starkweather & Gibbs, 822 Broadway, N. Y. C.
Staub, C. L., 15 7th ave., Pittsburgh.
Stead, R., 906 "F" st., Washington, D. C.
Stearns, J. G., 60 Devenshire st., Boston.
Steen, J. F., 36 6th st., Pittsburgh.
Steininger, J., Lincoln, Pa.
Steinkamp, J. B., 174 Race st., Cincinnati.
Stem, A. H., 56 Fletcher's Bl'k., Indianapolis.
" J. H., 56 Fletcher's Bl'k., Indianapolis.
Stendler, R., 159 Front st., N. Y. C.
Stent, E. J. N., 8 W. 14th st., N. Y. C.
Stephenson, H. M., 10 Pemberton sq., Boston.
Sterns, J. G., 36 Montauk Bl'k., Chicago.
Steude, E., 2405 S. La Salle st., Chicago.
Stevens, M. V., 1500 Folsom st., San Fran.
Stever, A. J., 27 Union sq., N. Y. C.
Stewardson, Jno., Chestnut Hill, Phila.
Stewart, G. S. S., 307 Plum st., Cincinnati.
Stewart, J., 4th & Market st., St. Louis.
" W. H., 307 Plum st., Cincinnati.
Stickney, F. W., 131 Devonshire st., Boston.
Stiles, C. L., 84 La Salle st., Chicago.
Stillburg, J., 20 5th ave., Pittsburgh.
Stillson, C. H., Ph.,B., '75 (S.S.S.), New Haven, Conn.
Stoble, C. U., 184 Dearborn st., Chicago.
Stone, A., 65 Westminister st., Providence, R. I.
Stratton, S. V., 57 Broadway, N. Y.
Street, J., 1237 Broadway, N. Y. C.
Strippelman, W., 159 La Salle st., Chicago.
Stuckert, J. F., 524 Walnut st., Phila.
Stueler, A., 159 Front st., N. Y.
Sturges, G. H., 19 Exchange pl., Boston.
Sturtzkober, C., 226 E. 4th st., N. Y. C.
Sullivan, L. H., 58 Borden Blk., Chicago.
Sunderland, J., 3414 Powelton ave., Phila.
Surgi, E., 56 Royal st., New Orleans, La.
Swain, E.R., San Francisco.
Switzer, H. R., 914 Olive st., St Louis.

T.

Taylor, A. A., '83 (McG. U.), Montreal, Can.
" B. E., 28 School st., Boston.
" I. S., 411 Olive st., St. Louis.
" R. B., Reynoldsville, Pa.
Teale, O. S., 247 Broadway, N. Y. C.
Thayer, G. B., 164 High st., Boston.
" S. J. F., 178 Devonshire st., Boston.
Thomas, C. P., 110 Dearborn st., Chicago.
" J. R., 160 Broadway, N. Y. C.
" W., 76 Metropolitan Bl'k., Chicago.
Thompson, D. M., Providence, R. I.
" E., 341 W.Lombard st., Baltimore.
" T. E., 8th ave. & 12th st., N. Y.
Thomson, A. G., 2909 "P" st., Washing., D. C.
Thorn & Wilson, 1267 Broadway, N. Y. C.
" A. H., 31 Union sq., N. Y. C.
Thorn, F. G., 410 Walnut st., Phila.
Thorne, E.W., 612 Market st., Wilmington, Del.
Thorp, T. G., 115 Broadway, N. Y. C.
Tilton, J. N., 80 Dearborn st., Chicago.
Tobey, S. E., 10 Tremont st., Boston.
Tolman, G. R., 16 Pemberton sq., Boston.
Townley, W. E., Jr., 32 Park pl., N. Y. C.
Townsend, F. B., 143 La Salle st., Chicago.
" L. R., 515 California st., San Fran.
" R. W., 101st. st. & 10th ave., N.Y.C.
Treat, S. A., 80 Dearborn st., Chicago.
Truscott, A., 618 Elm st., Camden, N. J.
Tubby, W. B., 115 Broadway, N. Y. C.
Turner, S. R., 529 7th st., Washington, D. C.
Tuthill, G., 52 Broadway, N. Y. C.
" W. B., 52 Broadway, N. Y. C.

U.

Underwood, L., 220 Devonshire st., Boston.
Upjohn, R. M., 11 Broadway, N. Y. C

V.

Van Brunt & Howe, 60 Devonshire st., Boston.
Van Norden, J. H., 1262 Broadway, N. Y. C
Van Osdel, J. M., 41 Clark st., Chicago.
Valk, L. B., 229 Broadway, N. Y. C.
Vasquez, R., Main and Delaware ave., Harrisburg, Pa.
Vaugham, H., 10 Pemberton sq., Boston.
Vaux & Radford, 61 Broadway, N. Y. C.
Vigeant, G., 45 La Salle st., Chicago.
Vinal, A. H., City Hall, Boston.
Von Nerta, G., 1400 "K" st., Wash., D. C.
Voelkel, G. E., 313 Kearny st., San Francisco.

W.

Wadlin, H. G., 10 Exchange pl., Boston.
Wadskier, T. D., 126 Dearborn st., Chicago.
Waescher, F. H., 84 Washington st., Chicago.
Wagner, A., 67 University pl., N. Y. C.
Wait, R. P., 7 Exchange pl., Boston.
Walker, C. H., 6 Beacon st., Boston.
" W. R., 27 Custon House st., Providence, R. I.
Wallingford, C. A., 59 Fletcher's Bl'k., Indianapolis, Ind.
Walsh, T., 914½ Olive st., St. Louis.
Walter, E. L., Scranton, Pa.
" T. U., 720 N. Broad st., Phila.
" T. W., 720 N. Broad st., Phila.
Walther, B., 2253 3d ave., N. Y. C.
Ward, S. S., Newport, R. I.
Ware, J. E., 19 Park pl., N. Y. C.
" W. R., 211 Tremont st., Boston.
" W. S., Prof. A., (Co. C.), N. Y. C.
Warner, B., 132 Broadway, N. Y. C.
" S. A., 132 Broadway, N. Y. C.
Washburn, W., 88 Myrtle st., Boston.
Waters, A. V., 591 La Salle st., Chicago.
Watson, F. R., 518 Walnut st., Phila.
Weary, C. A., 159 La Salle st., Chicago.
Wedenmann, J., 52 Bible House, N. Y.
Wehn, W. H., 694 Lexington st., Baltimore.
Weissbein, L., 3 State st., Boston.
Welsh, P. A., 223 S. 6th st., Phila.
" T. J., 302 Montgomery st., San Francisco.
Wendel, H. T., 121 E. 23d st., N. Y. C.
Wentworth, W. P., 8 Exchange pl., Boston.
West, A. L., C. E., 821 Main st., Richmond, Va.
" W. S., 171 Broadway, N. Y. C.
Wester, J. D., 112 Seaverris st., Boston.
Weston, F., 219 N. 8th st., St. Louis.
" T., 120 Broadway N. Y. C.
Wetherell, G. H., 18 Pemberton sq., Boston.
Wheeler, L. B., 36 New st., N. Y. C.
Wheelock, O. L., 175 Dearborn st., Chicago.
Wheelwright, E. M., 6 Beacon st., Boston.
White, P. J., 7 N. 10th st., Richmond, Va,
Whitehouse, F. M., 36 Clark st., Chicago.
Whitson, J. F., 4109 State st., Chicago.
Widmayer, W., 219 7th ave., N. Y. C.
Wierzbieniec, J. A., 130 La Salle st., Chicago.
Wight, P. B., 202 La Salle st., Chicago.
Wightman, J. S., 2279 3d ave., N. Y. C.
Wilcox, C. F., 45 Westminster st., Providence, R.I.
Wilhemi, O. J., 602 Olive st., St. Louis.
Wilkes, C. M., '81 (M. I. of T.), 5 Bulfinch pl., Boston.
Willard, D. W., M. E., '70 (M. I. of T.), 55 Broadway, N. Y. C.
" W. H., 116 Montgomery st., San Francisco.
Willett, J. R., 94 La Salle st., Chicago.
Williamson, T. R., 3d & Walnut sts., Phila.
Wilson Bros. & Co., 115 Broadway, N. Y., and 435 Chestnut st., Phila.
" H. M., 120 Dorcester st., Boston.
" H. R., 614 W. Lake st., Chicago.
" J. A., 52 Lexington st., Baltimore.
" Jno. A., C. E., '56 (R. P. I.), 435 Chestnut st., Phila.
" M. H., 243 State st, Chicago.
" R., 82 Nassau st., N. Y. C.
" W. T., 52 Lexington st., Baltimore.
Windrim, J. H., 132 S. 3d st., Phila.
Winslow, W. T., 18 Pemberton sq., Boston.
Winton, W. W. de, 508 Battery st., San Francisco.
Withers, F. C., Bible House, N. Y. C.
Wolf, F. W., 66 W. Lake st., Chicago.
Wolfe, C., 111 Broadway, N. Y. C.
" G. H., 240 Montgomery st., San Fran.
" J. E., 240 Montgomery st., San Fran.
Wood, J. A., 240 Broadway, N. Y. C.
" W. H., 57 Broadway, N. Y. C.
Woodcock, S. S., 13 Exchange pl., Boston.
Woodward, W. E., 82 Water st., Boston.
Worthington, J. C., 1714 Ontario st., Phila.
Wright, J., 418 California st., San Francisco.
Wyatt, J. B. N., 55 N. Charles st., Baltimore.
Wyneken, L. E., 515 California st., San Fran

Y.

Yarnall, J. K., 4 S. Merrick st., Phila.
York, A. G., 92 Metropolitan Bl'k., Chicago.
Young, D. C., C. E., '79 (R. P. I.), Salt Lake, U.
" G. H., 186 Devonshire st., Boston.
" I. B., 233 W. 4th st., Cincinnati, O.

Z.

Zerrahn, F. E., 68 Devonshire st., Boston.
Zilenziger, C., 704 Master st., Phila.
Zittil, J., 27 N. Clark st., Chicago.

ARMY ENGINEERS.

Rank, Duties and Addresses of the Officers of the Corps of Engineers, U. S. Army.

BRIGADIER GENERAL AND CHIEF OF ENGINEERS.

1. John Newton, Bvt. Major General '42, in command of the Corps, of Engineers,
Washington, D. C.

COLONELS.

1. Charles S. Stewart, '46, in charge of Fortifications for the Pacific Coast,
San Francisco, Cal.
2. Charles E. Blunt, '46, in charge of Forts, Harbors and River Improvements for Me. and N. H., P. O. Box, 1989, Portland, Me.
3. James C. Duane, Bvt. Brig. General, '48, Member and President of the Board of Engineers. Engineer 3d Light House District.
P. O. Box 2128, New York City.
4 Quincy A. Gillmore, Bvt. Major General, in charge of Forts, Harbors and River Improvements for Va., N. C. and Ga.
5. Thos. Lincoln Casey, '52, on detached service; in charge of the construction of the building for the State, War and Navy Department Buildings. Member of the Light House Board,
Washington, D. C.
6. John G. Parke, Bvt. Major General, '49, in charge of the 3d Division, Office of the Chief of Engineers, Washington, D. C.

LIEUTENANT COLONELS.

1. George H. Mendell, Bvt. Colonel, '52, in charge of Forts and Harbor improvements for California. Supervising Engineer over districts embracing works in charge of Major Jones and Captains Powell and Payson. Member of Board of Engineers for the Pacific Coast,
San Francisco, Cal.
2. Henry L. Abbott, Bvt. Brig. General, '54. Member of the Board of Engineers, in charge of experiments with Torpedoes. Commanding Engineer Depot and Post of Willets Point, and Battalion of Engineers, and Engineer School of Application at Willets Point, etc.,
Whitestone N. Y.
3. William P. Craighill, '53, in charge of Forts, Harbors and River Improvements, for Maryland and West Virginia. Supervising Engineer over districts in charge of Captains Hinman and Bixby, and Messrs. S. T. Abert and W. F. Smith. Member of Board of Engineer Officers, etc., etc.,
378 St. Paul st., Baltimore, Md.
4. Cyrus C. Comstock, Bvt. Brig. General, '55. Member of the Board of Engineers. Member of The Mississippi River Commission, etc.,
Army Building, New York City.
5. Orlando M. Poe, Bvt. Brig. General, '56, in charge of Forts, Harbors and River Improvements for Michigan,
34 Congress st., W. Detroit, Mich.
6. David C. Houston, Bvt. Colonel, '56, Supervising Engineer of the districts in charge of Majors Damrell and Heuer, and Captains Hoxie and Russell. Member of Board of Engineer Officers to consider questions of construction of a bridge over the Alabama River at Selma, Ala., etc.,
63 Carondelet st., New Orleans, La.
Temporarily Army Building, New York City.
7. George A. Elliot, '55, in charge of Forts, Harbors and River Improvements for Rhode Island, Massachusetts and Connecticut,
Newport, R. I.
8. Henry M. Robert, '57, in charge of Forts, Harbor and River Improvements for Pennsylvania, New Jersey and Delaware,
1125 Girard st., Phila., Pa.
9. William E. Merrill, Bvt. General, '59, in charge of the improvement of the Ohio River and tributaries. Engineer 14th Light House District. Member of Board of Engineer Officers, etc., Custom House, Cincinnati, O.
10. Walter McFarland, '69, in charge of Forts, River and Harbor improvements for Connecticut. On duty in connection with removal of obstructions in East River and Hell Gate. Improvement of Delaware River and Bay, etc.,
P. O. Box 93, Station A. New York City.
11. John M. Wilson, Bvt. Colonel, '60, in charge of 1st and 2d Divisions, Office of the Chief of Engineers. In charge of Public Buildings and Grounds in the District of Columbia, etc.,
Washington, D. C.
12. John W. Barlow, '61, in charge of Harbor Improvements for Michigan and Wisconsin,
P. O. Drawer No. 7, Milwaukee, Wis.

MAJORS.

1. Peter C. Hains, Bvt. Lieut. Colonel, '61, in charge of Forts Foote and Washington, Md. In charge of the improvement of the Harbors at Washington and Georgetown, D. C., the Potomac River in the vicinity of Washington, D. C., James and Shenandoah Rivers, W. Va., etc., 2136 Penn ave., Washington, D. C.
2. George L. Gillespie, Bvt. Lieut. Colonel, '62, in charge of Forts of New York Harbor and New Jersey Harbor and River Improvements, P.O. Box 102, Station A. New York City.
3. Charles R. Suter, '62, Member of The Mississippi River Commission. Member and

President of the Missouri River Commission. Engineer 15th Light House District,
1415 Washington ave., St. Louis, Mo.

4. Jared A. Smith, '62, on detached service; Engineer 5th and 6th Light House Districts,
1 Courtland st., Baltimore, Md.

5. Samuel M. Mansfield, Bvt. Lieut. Colonel, '62, in charge of Texas Harbor and River Improvements, etc., Galveston, Tex.

6. William R. King, '63, in charge of River Improvements for Kentucky and Tennessee. Member of Board of Engineer Officers, etc.,
Chattanooga, Tenn.

7. Wm. H. H. Benyaurd, '63, in charge of improvements of Rivers and Harbors for Illinois,
P. O. Drawer 132, Chicago, Ill.

8. Garret J. Lydecker, '64, in charge of the Washington Aqueduct. Engineer Commissioner of the District of Columbia, etc.,
Georgetown Station, Washington, D. C.

9. Amos Stickney, '64, in charge of Fourth District of the Mississippi River. Member of Board of Engineer Officers,
P. O. Drawer 432, New Orleans, La.

10. Alexander Mackenzie, '64, in charge of the improvement of the Mississippi River from St. Paul to Des Moines Rapids. Member of the Missouri River Commission, Rock Island, Ill.

11. Oswald H. Ernst, '64, in charge of the improvement of the Mississippi River between the mouths of the Illinois and Ohio Rivers. Member of the Missouri River Commission,
Custom House, St., Louis, Mo.

12. David P. Heap, '64, on detached service, Engineer Sec. to the Light House Board.
Office of the Light House Board, Wash., D. C.

13. William Ludlow, Bvt. Lieut. Colonel, '64, on leave of absence for one year from April 1, 1885, Water Department, Phila., Pa.

14. William A. Jones, '64, in charge of the improvement and survey of the Columbia River and River Improvements of Oregon, etc.,
Portland, Or.

15. Andrew N. Damrell, '64, in charge of Forts, River and Harbor Improvements of Alabama and Mississippi. Member of Board of Engineer Officers, etc., Mobile, Ala.

16. Charles J. Allen, '64, in charge of the improvement of the Harbors and Rivers for Minnessota, etc., P. O. Box H. St. Paul, Minn.

17. Charles W. Raymond, '65, in charge of Forts, Rivers and Harbor Improvements for Massachusetts. Engineer, temporarily, of 1st and 2d Light House Districts,
P. O. Box 5346, Boston, Mass.

18. L. Cooper Overman, '65, in charge of the improvement of Harbors of Lake Erie, excepting Erie and Buffalo, etc.,
153 Erie st., Cleveland, Ohio.

19. Alexander M. Miller, '66, in charge of the improvement of the Mississippi and Missouri Rivers, etc.,
Basement, Custom House, St. Louis, Mo.

20. Milton B. Adams, '65, in charge of the construction of Fort Montgomery, N. Y., and Rivers and Harbor Improvements of Nothern New York and Vermont, etc., Burlington, Vt.

21. Wm. R. Livermore, '65, on detached service, Engineer Officer, Department of Texas,
San Antonio, Tex.

22. William H. Heuer, '65, in charge of Forts of Louisiana and the mouth of the Mississippi River. Engineer 7th and 8th Light House Districts. Member of Board of Engineer Officers on subject of permanent improvement of the Delaware River and Bay, etc.,
63 Carondelet st., New Orleans, La.

23. William S. Stanton, '65, under orders to relieve Major Raymond as Engineer of 1st and 2d Light House Districts, West Point, N.Y.

24. Thomas H. Handbury, '65, on detached service, Engineer Officer, Division of the Missouri, etc,,
Headquarters Div. of the Missouri, Chicago, Ill.

CAPTAINS.

1. James C. Post, '65, in charge of the improvements of the Little Kanawha, Guyandotte, and Buckhannon Rivers, W. Va., the Big Sandy River, W. Va., and Ky., and the Kentucky and Tradewater Rivers, Ky. In charge of preliminary examination and of survey of Rough River, Ky.,
Government Building, Cincinnati, O.

2. James F. Gregory, '65, on detached service, Aide-de-Camp on the personal staff of the Lieutenant General of the Army,
Headquarters of the Army, Wash., D. C.

3. Henry M. Adams, '66, in charge of the 4th and 5th Divisions, Office of the Chief of Engineers, Washington, D. C.

4. Chas. E. L. B. Davis, '66, on detached service, Engineer 10th and 11th Light House Districts. 311 Woodward ave., Detroit, Mich.

5. George M. Weeler, '66, on temporary duty to surpervise certain publications pertaining to Geographical Surveys west of the 100th Meridan. P. O. Lock Box 93, Washington, D. C.
Temporarily, Lock Box 49, Bar Harbor, Me.

6. James B. Quinn, '66, in charge of the improvement of the Yellowstone River and the Missouri River from Sioux City, Iowa, to Fort Benton, Mont.,
P. O. Lock Box, 2124 St. Paul, Minn.

7. Daniel W. Lockwood, '66, in charge of the improvement of the harbor on eastern shore of Lake Mich., Grand Rapids, Mich.

8. Ernest H. Ruffner, '67, in charge of the improvement of the Mississippi River between De Moines Rapids and the mouth of the Illinois River, 512 Vermont st., Quincy, Ill.

9. John C. Mallery, '67, on detached service, Engineer 4th Light House District,
P. O. Box 825, Phila., Pa.

10. Clinton B. Sears, '67, in charge of 3d District of the Mississippi River. Member of Board of Engineer Officers,
Bethell Block, Memphis, Tenn.

11. Thomas Turtle, '67, on detached service, Secretary and disbursing officer of The Mississippi River Commission,
2828 Washington ave., St. Louis, Mo.

12. Edward Maguire, '67, in charge of the construction of Forts Porter, Niagara and Ontario,

N. Y. In charge of the improvement of the harbors at Erie, Pa.,and Buffalo, on Lake Erie and others on Lake Ontario. In charge of the improvement of the Niagara River, N. Y.,etc., Oswego, N. Y.

13. Frederick A. Mahan, '67, on detached service, Assistant to the Engineer Commissioner of the District of Columbia, 214 Four-and-a-half st. Washington, D. C.

14. Charles F. Powell, '67, in charge of Forts, Harbors and River improvements for Washington and Oregon. Engineer 13th Light House District, Portland, Or.

15. Frederick A. Himman, '69, in charge of the improvement of the Harbor at Norfolk and Rivers of Virginia. Member of Board Advisory to harbors, etc., 57 Main st., Norfolk.

16. Albert H. Payson, '67, in charge of the improvement of Humboldt Harbor and Bay,California. In charge of the improvement of Rivers, etc., under Lieutenant Colonel Mendill. Engineer 12th Light House District, P. O. Box 2448, San Francisco.

17. John G. D. Knight, '68,commanding Company A, Battalion of Engineers. Whitestone, N. Y.

18. Richard L. Hoxie, '68, in charge of Forts Pickens and McRee, and the construction of Fort Barrancas and redoubt, Fla. In charge of the improvement of Pensacola Harbor, Fla. In charge of the improvement of the Rivers of parts of Georgia and Alabama, etc., Montgomery, Ala.

19. William L. Marshall, '68, in charge of the improvement of the Harbors at Milwaukee, Racine,and the Kenosha,Wis., and Waukegan, Ill., and harbor of refuge at Milwaukee Bay, Wis. In charge of the improvement of the Rivers Fox and Wisconsin. In charge of water level observations on Lake Michigan, etc., P. O. Drawer 42, Milwaukee. Wis.

20. Joseph H. Willard,'68, on detached service, Secretary and Assistant to the Construction Committee of The Mississippi River Commission, 2653 Olive st., St. Louis, Mo.

21. Philip M. Price, '69, commanding Company C, Battalion of Engineers, Whitestone, N. Y.

22. Francis V. Green, '70, under orders to report for duty at the U. S. Military Academy, West Point, August 28, 1885, Box 54, Georgetown, D. C.

23. Carl F. Palfrey, '70, awaiting orders. Care R. B. Palfrey, Custom House,Boston.

24. William H. Bixby, '73, in charge of Fort Macon, N. C., and River and Harbor improvements for North and South Carolina, Wilmington, N. C.

25. Henry S. Taber, '73, in charge of Harbor and River Improvements for Arkansas, Little Rock, Ark.

26. Erie Bergland, '69, in charge of the improvement of the Rivers for Louisiana and Mississippi, Lock Bcx 13, Vicksburg, Miss,

27. William T. Russell, '73, in charge of Forts, River and Harbor Improvements for Florida, P. O. Box 334, Jacksonville, Fla.

28. Thomas N. Bailey, '73, commanding Company B, Battalion of Engineers. Whitestone, N. Y.

29. Thomas W. Symons, '74, on duty under the immediate orders of Major Lydecker, Georgetown Station, Washington, D. C.

30. Smith S. Leach, '75, in charge of 1st District of the Mississippi River from Cairo to foot of Island No. 40, and of 2d District from foot of Island No. 40 to mouth of White River. Member of Board of Engineer Officers, 280 Front st, Memphis, Tenn.

FIRST LIEUTENANTS.

1. Dan. C. Kingman, '75, on detached service; Engineer Officer Department of the Platte, Headquarters Dept. of the Platte, Omaha, Neb.

2. Eugene Griffin, '75, on detached service; on duty at the Military Academy as Assistant Professor of Civil and Military Engineering, West Point, N. Y.

3. Willard Young, '75, on duty under the immediate orders of Major Jones, Cascade Locks, Or.

4. William M. Black, '77, on detached service; on duty at the Military Adademy as Assistant Instructor of Practical Military Engineering, West Point, N. Y.

5. Walter L. Fisk, '77, on detached service; Secretary and disbursing officer of the Missouri River Commissjon, 1415 Washington ave., St. Louis, Mo.

6. Solomon W. Roessler, '77, Adjutant and Treasurer, of the Battalion of Engineers and Post of Willets Point. Commanding Company D., Battalion of Engineers. Inspector of Rifle Practice, Battalion of Engineers, Whitestone, N. Y.

7. George McC. Derby, '78, on duty in connection with the removal of obstructions in East River and Hell Gate, N. Y., Astoria, N. Y.

8. James L. Lusk, '78, Q. M. Battalion of Engineers. A. A. Q. M., and A. C. S., Post of Willets Point, Whitestone, N. Y.

9. Frederic V. Abbot, '79, on duty under the immediate orders of Colonel Gillmore, P. O. Box 75, Charleston, S. C.

10. Thomas L. Casey, '79, on detached service; Engineer Officer Division of the Pacific and Department of California. Presidio of San Francisco, San Fran., Cal.

11. Theodore A. Bingham, '79, on detached service; Engineer Officer, Department of Arizona, Whipple Barracks, Prescott, Ariz.

12. Curtis McD. Townsend, '79, on detached service; Assistant to the Engineer Commissioner of the District of Columbia, Columbia Building, 4½ st., Wash., D. C.

13. Gustav J. Fiebeger, '79, on detached service; on duty at the Military Academy in Department of Civil and Military Engineering, West Point, N. Y.

14. Oberlin M. Carter, '80, on duty under the immediate orders of Colonel Gillmore, P. O. Box 133, Savannah, Ga.

15. George W. Goethals, '80, on duty under the immediate orders of Lieutenant Colonel Merrill, Custom House, Cincinnati, Ohio.
16. John Millis, '82, on detached service; on duty under the immediate orders of Colonel Duane, P. O, Box 2128, New York City.
17. John Biddle, '81, on detached service; Engineer Officer, Department of Dakota, Fort Snelling, Minn.
18. Harry F. Hodges, '81, on duty under the immediate orders of Lieutenant Colonel Poe, 34 Congress st., West Detroit, Mich.
19. James G. Warren, '81, on duty under the immediate orders of Major King, Chattanooga, Tenn.
20. Edward Burr, '82, on duty under the immediate orders of Captain Powell, Portland Or.
21. Oscar T. Crosby, '82, on duty under the immediate orders of Major Heuer, 63 Carondelet st., New Orleans, La.
22. Lansing H. Beach, '82, on temporary duty with Company E, Battalion of Engineers, West Point, N. Y.
23. Graham D. Fitch, '82, on duty with Company B, Battalion of Engineers, Whitestone, N. Y.
24. Eugene J. Spencer, '82, on duty with Company A, Battalion of Engineers, Whitestone, N. Y.
25. George A. Zinn, '83, on duty with Company B, Battalion of Engineers, Whitestone, N. Y.
26. William C. Langfitt, '83, on duty with Company C, Battalion of Engineers, Whitestone, N. Y.

SECOND LIEUTENANTS.

1. Henry E. Waterman, '83, on duty with Company A, Battalion of Engineers, Whitestone, N. Y.
2. Irving Hale, '84, on duty with Company C, Battalion of Engineers, Whitestone, N. Y.
3. James C. Sanford, '84, on duty with Company A, Battalion of Engineers, Whitestone, N. Y.
4. Hiram M. Chittenden, '84, on duty with Company B, Battalion of Engineers, Whitestone, N. Y.
5. Cassius E. Gillette, '84, on duty with Company C, Battalion of Engineers, Whitestone, N. Y.
6. Davin DuB. Gaillard, '84, on duty with Company A, Battallion of Engineers, Whitestone, N. Y.
7. Harry Taylor, '84, on duty with Company B, Battalion of Engineers, Whitestone, N. Y.
8. William L. Sibert, '84, on duty with Company C, Battalion of Engineers, Whitestone, N. Y.

U. S. AGENTS.

S. T. Abert, in charge of the improvement of Harbors, etc., under Lieutenant Colonel Craighill, 810 Nineteenth st., Wash., D. C.

William F. Smith, in charge of the improvement of the Harbors, etc., under Lieutenant Colonel Craighill, 606½ Market st., Wilmington, Del.

U. S. CIVIL ENGINEER.

M. Meigs, on duty under immediate orders of Major Mackenzie, Keokuk, Iowa.

Rank, Duties and Addresses of the U. S. Ordnance Corps, U. S. Army.

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Stephen V. Benet, '49, Chief of Ordnance and Member of Fortification Board, Washington, D. C.

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1. J. McAllister, brevet, '47, commanding the Benicia Arsenal, Benecia, Cal.
2. S. Crispin, brevet, '50, commanding the Frankford Arsenal, Philadelphia, Pa.
3. T. G. Baylor, brevet, '57, commanding the New York Arsenal, President of the Ordnance Board, and President of Board for Testing Rifled Cannon, etc., Governor's Island, New York city. Post Office Box 1449.

LIEUTENANT COLONELS.

1. J. M. Whittemore, '60, on duty in the office of the Chief of Ordnance, Washington, D. C.
2. A. R. Buffington, '61, commanding the National Armory, Springfield, Mass.
3. D. W. Flagler, brevet, '61, commanding the Rock Island Arsenal, Rock Island, Ill.
4. A. Mordecai, brevet, '61, commanding the Watervliet Arsenal, West Troy, N. Y.

MAJORS.

1. F. H. Parker, brevet 61, commanding the Watertown Arsenal and Member of Board for Testing Rifled Cannon, etc., Watertown, Mass.
2. J. P. Farley, '61, commanding the U. S. Powder Depot, Dover, N. J.
3. L. S. Babbitt, '61, commanding the Fort Monroe Arsenal, Fort Monroe, Va.
4. W. A. Marye, '62, commanding the Augusta Arsenal, Augusta, Ga.
5. I. Arnold, Jr., '62, commanding the San Antonia Arsenal, San Antonio, Texas.
6. C. Comly, '62, Instructor of Ordnance and Gunnery, U. S. Military Academy, West Point, N. Y.
7. J. R. McGinness, brevet, '63, commanding the St. Louis Powder Depot, Jefferson Barracks, Mo.
8. G. W. McKee, brevet, '63, Member of the Ordnance Board and Member of Board for Test-

ing Rifled Cannon, etc., Governor's Island, New York. Post Office Box 1449.

9. F. H. Phipps, '63, commanding the Kennebec Arsenal, Augusta, Me.

10. J. W. Reilly, '63, commanding the Allegheny Arsenal, Pittsburgh, Pa.

CAPTAINS.

1. J. A. Kress, brevet Major, '63, commanding the Indianapolis Arsenal, Indianapolis, Ind.
2. O. E. Michaelis, brevet, comm'd. '63, Assistant Watervliet Arsenal, West Troy, N. Y.
3. C. E. Dutton, comm'd. '64, on duty under the Interior Department, Geological Survey, Washton, D. C.
4. J. G. Butler, '63, Assistant Rock Island Arsenal, Rock Island, Ill.
5. C. Bryant, '64, Assistant Benicia Arsenal, Benicia, Cal.
6. A. L. Varney, comm'd. '65, Assistant Rock Island Arsenal, Rock Island, Ill.
7. J. C. Clifford, comm'd. '65, Assistant Frankford Arsenal, Philadelphia, Pa.
8. J. E. Greer, '67, commanding the Fort Leavenworth Ordnance Depot, and Chief Ordnance Officer Department of the Missouri, Fort Leavenworth, Kansas.
9. J. Pitman, '67, Assistant Watertown Arsenal, Watertown, Mass.
10. C. Shaler, '67, Member of the Ordnance Board, and Member of Board for Testing Rifled Cannon, etc., Governor's Island, New York city. Post Office Box 1449.
11. H. Metcalfe, '68, Assistant Watervliet Arsenal, West Troy, N. Y.
12. W. S. Starring, '65, Assistant National Armory, Springfield, Mass.
13. C. S. Smith, '66, Principal Assistant in the Ordnance Bureau and Member of Fortification Board, Washington, D. C.
14. S. E. Blunt, '72, Inspector of Rifle Practice at the Headquarters of the Army, Wash. ,D.C.
15. F. Heath, '68, Assistant National Armory, Springfield, Mass.
16. D. M. Taylor, A. D. C., '69, to the Commanding General, Division of the Pacific, Presidio, San Francisco, Cal.
17. D. A. Lyle, '69, on foundry duty and member of the Board on Life-Saving Apparatus, etc., under the Secretary of the Treasury, and Member of Board for Testing Rifled Cannon, etc., Boston, Mass. P. O. Box 2253.
18. J. Rockwell, Jr., '70, commanding the Fort Abraham Lincoln Ordnance Depot, and Chief Ordnance Officer Department of Dakota, Fort A. Lincoln, Dak.
19. J. C. Ayres, '71, Assistant Benicia Arsenal, Benicia Cal.
20. M. W. Lyon, '62, Assistant Watertown Arsenal, Watertown, Mass.
21. C. W. Whipple, '68, Assistant to the Ordnance Board, Governor's Island, New York city. P. O. Box 1449.
22. A. H. Russell, '71, commanding the Vancouver Barracks Ordnance Depot, and Chief Ordnance Officer Department of the Columbia, Vancouver, Washington Territory.

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1. R. Birnie, Jr., '72, on foundry duty, Cold Spring, N. Y.
2. I. MacNutt, '70, Assistant Frankford Arsenal, Philadelphia, Pa.
3. C. C. Morrison, '71, Assistant Rock Island Arsenal, Rock Island, Ill.
4. F. Baker, '72, Assistant Frankford Assenal, Philadelphia, Pa.
5. O. B. Mitcham, '74, commanding the Cheyenne Ordnance Depot and Chief Ordnance Officer Department of the Platte, Cheyenne, Wyoming Ter.
6. H. D. Borup, '76, on foundry duty, Boston, Mass. P. O. Box 2253.
7. L. L. Bruft, '76, Assistant Instructor of Ordnance and Gunnery, United States Military Academy, West Point, N. Y.
8. C. H. Clark, '75, Assistant National Armory, Springfield, Mass.
9. W. M. Medcalfe, '76, Assistant to the Ordnance Board, Governor's Island, New York city. P. O. Box 1449.
10. Wm. Crozier, '76, Assistant Watertown Arsenal, Watertown, Mass.
11. W. B. Gordon, '77, Acting Assistant Professor of Philosophy, U. S. Military Academy West Point, N. Y.
12. F. E. Hobbs, '78, on foundry duty, Station G, Philadelphia, Pa.
13. D. A. Howard, '78, Acting Assistant Professor of Mathematics, U. S. Military Academy, West Point, N. Y.
14. Vacancy.

RETIRED OFFICERS.

Col. R. H. K. Whiteley, bvt. brigadier general, Baltimore, Md.
Col. P. V. Hagner, bvt. brigadier general, Washington, D. C.
Col. T. T. S. Laidley, New York city.
Capt. J. C. Symmes, Homburg von der Hohe, Germany.
Capt. J. H. Rollins, Columbia, Mo.
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11. Rock Island Arsenal—Lieut. Col. D. W. Flagler, Capt. J. G. Butler, Capt. A. L. Varney, 1st Lieut. C. C. Morrison.
12. St. Louis Powder Depot—Major J. R. McGinness.
13. San Antonio Arsenal—Major I. Arnold, Jr.
14. Watertown Arsenal—Major F. H. Parker, Capt. J. Pitman, Capt. M. W. Lyon, 1st. Lieut. Wm. Crozier.
15. Watervliet Arsenal—Lieut. Col. A. Mordecai, Capt. O. E. Michaelis, Capt. Henry Metcalfe, Capt. D. J. Young, O. S. K.
16. Cheyenne Ordnance Depot—1st Lieut O. B. Mitcham.
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18. Fort Leavenworth Ordnance Depot—Capt. J. E. Greer.
19. Vancouver Barracks Ordnance Depot—Capt. A. H. Russell.
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25. Board for Testing Rifled Cannon, etc.—Col. T. G. Baylor, Major F. H. Parker, Major Geo. W. McKee, Capt. C. Shaler, Capt. D. A. Lyle.

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B.

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C.

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D.

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F.

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" G. S., with Union B. Co., 118 Broadway, N. Y. C.
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G.

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" J., 615 Chestnut st., St. Louis.
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H.

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I.

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J.

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K.

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" Z., King B. Works, Cleveland, O.
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" H., Jr., King B. Works, Cleveland, O.

L.

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" P. E., 177 La Salle st., Chicago.
Lang, A., 2 Towson, st., Baltimore.
Lassig & Allen, 21 Metropolitan B'lk., Chicago.
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Leers, F. A., care of Passaic R. M. Co., Patterson, N. J.
Leschon, A., with Keystone B. Co., Pittsburgh.
Lewis, C. F., with King B. Co., Cleveland, O.
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Lindgren, E., C.E., '80 (Carlesruhe), Phœnix B. Co., Phœnixville, Pa.
Long, T. J., C.E., '73 (R.P.I.), with Morse B. Co., Youngstown, O.

M.

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Moore, C. E., E., W. St. L. & R.R.R., Moberly, Mo.
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" G. S., 35 Wall st., N. Y. C.
" J. C., with Columbia B. Co., Dayton, O.
Morse, C. J., C.E., '74 (S.S.S.), Supt. Morse B. Co., Youngstown, O.
" H. G., C.E., '71 (R.P.I.), P., Morse B. Co., Youngstown, O.
Moulton, M. C. E., '77 (T.S.), Asst. K. & I. Bridge, Louisville, Ky.

N.

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O.

O'Connor & McCulloch, Louisville, Ky.

P.

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Patton, W. M., 89 Saratoga st., Balimore.
Pearl, J. W., C.E., '80 (R.P.I.), Berlin B. Co., Brenton Harbor, Mich.
Phillips, H. A., A., '73 (M.I. of T.), Boston B. Works., 353 Marlborough st., Boston.
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Q.

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" H. A., Hawley Bldg., Chicago.

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Seaver, J. W., Iron City B. Works, Pittsburgh.
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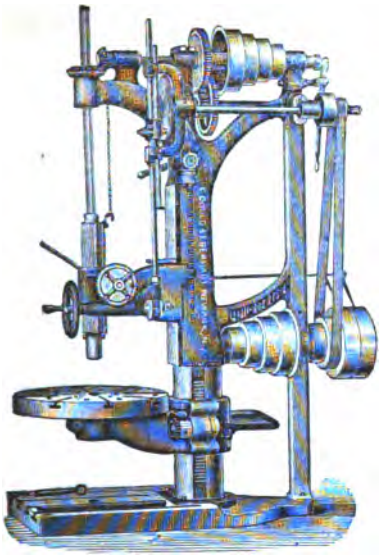

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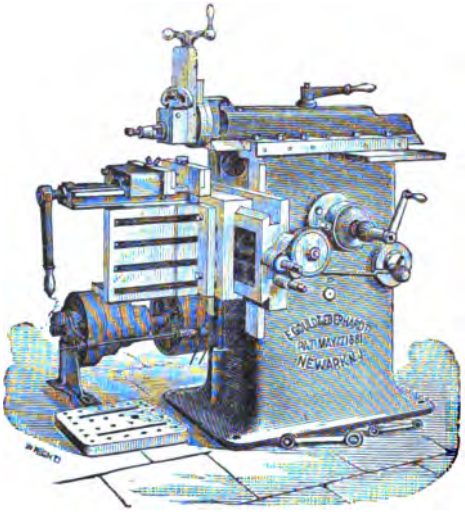

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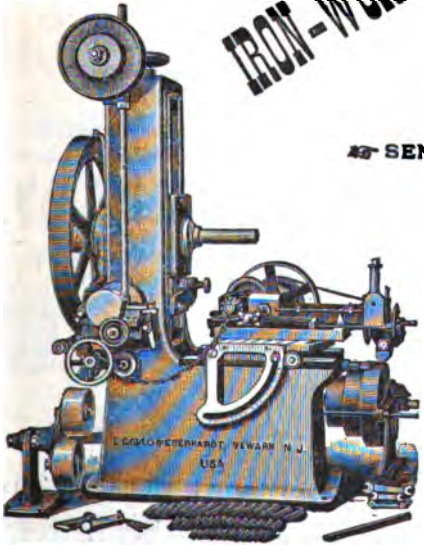

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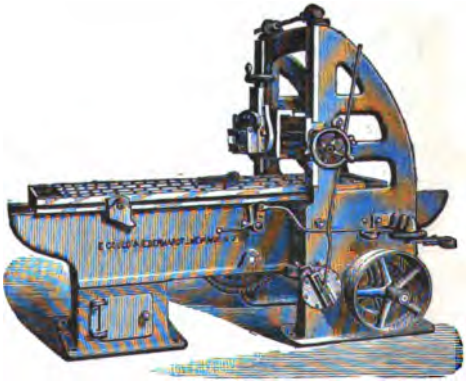

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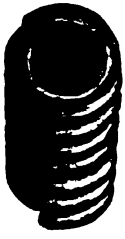

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Boston, E. M., Western El. Light Co., Chicago.
Bowen, G. S., Chicago.
" W. J., Norwalk, O.
Bowers, G. E., Fitchburg, Mass.
Brackett, Prof. C. F., Prineeton, N. J.
Bradley, C. T., N. Y. C.
" E. L., 518 Broadway, N. Y. C.
Bradneck, Dr. F., 122 E. 22d st., N. Y. C.
Bragg, R., San Francisco.
Breckenbridge, H. W., Providence, R. I.
Brennan, T., 195 Broadway, N. Y. C.
Bresnahan, J. T., 1300 5th st., Washington, D. C.
Brewer, B. B., Sacramento, Cal.
" H. J., M., Lechanche Company, 149 W. 18th st., N. Y. C.
Brick, M., 195 Broadway, N. Y. C.
Brinckman, A., Astoria, N. Y.
Brinkerhoff, C. M., 219 E. 18th st., N. Y. C.
Brockaway, C. W., Brush El. Co., Minneapolis, Minn.
Brooks, D., Jr., 2008 Chestnut st., Phila.
" M., M.E., '83 (S.I. of T.), Am. Bell Tel'p. Co., Boston.
Brower, H. J., 195 Broadway, N. Y. C.
Brown, A. S., G. Supt. Mutual Union Tel'g. Co., N. Y. C.
" E. D., Brush El. Co., Shanghai, China.
" H. P., Brush El. Co., 88 Market st., Chicago.
" J. W., Augusta, Ga.
" Robt., N. Y. C.
" S. J. T., Hamilton, Can.
" W. F., N. Y. C.
Bruns, Lt. C. L., N. Y. C.
Brush, C. F., 71 Ontario st., Cleveland.
Bryant, W. C., '84 (W. F. I.), Asst. Supt. Elec. Light Co., Bridgeport, Conn.

Buck, H. C., 70 Washington st., Boston.
Buchanan, R. D., N. Y. C.
Buckingham, C. L., Elizabeth, N. J.
Buell, C. E., Washington, D. C.
Bulen, G. F., N. Y. C.
Bulkley, C. S., San Francisco.
Bullock, A. D., Cinn., O.
Bunnell, J. H., N. Y. C.
Butler, M. D., M., W. U. Telg. Co., Indianapolis, Ind.
Buys, B., Reese, Mich.
BYLLESBY H. M., Room 81, 115 Broadway, N. Y. C.

C.

Callahan, E. A., 84 Broad st., N.Y.C.
Callender, W. M., N. Y. C.
Candee, W. D., Brooklyn.
Capewell, W. H., Phila.
Card, B. F., N. Y. C.
Carney, M. J., Toledo, O.
Casebolt, H., San Francisco.
Catlin, F., 195 Broadway, N. Y. C.
Chamberlain, C. L., 65 5th ave., N. Y. C.
Chambers, J. C., Cincinnati.
Chandler, A. B., N. Y. C.
Channing, W. F., Boston.
Chapman, W. H., Middlebury, Vt.
Chase, H. A., Lynn, Mass.
" R. G., C.E., '64 (D.C.), Boston.
Cheever, C. A., 154 Nassau st., N. Y. C.
Chester & Co., 22 New Church st., N. Y. C.
Childs, W. A., 150 Fulton st., N. Y. C
Chinnock, C. E., Metallic Tel'p. Co., 196 Broadway, N. Y. C.
Clark, C.L., 65 5th ave., N.Y.C.
" H.A., Boston.
" J.W., Etna, O.
" L.W., Providence, R.I.
" W.C., Portland, Me.
Clarke, C.L., 1 Broadway, N.Y.C.
Cleland, T., N.Y.C.
Cleveland, W.B., 333 Prospect st., Cleveland.
Cochrane, A., Boston.
Coe, E., Boston.
Coggershall, G.M., Jersey City, N.J.
Colby, E.A., Ph.B., '80 (S.S.S.), 107 Orange st., Newark, N.J.
Connelly, J.H., Pittsburgh.
Connors, H.S., Cleveland.
Cooke, H.E., Brush Elec. Co. 71 Ontario st., Cleveland, O.
Cooley, C.A., New Britain, Conn.
Cornish, T.E., 1111 Chestnut st., Phila.
Cowles, E.H., Cleveland, O.
Coy, G.W., Milford, Conn.
Coyle, J.H., St. Louis.
Cozzens, H.W., Newport, R.I.
Craig, J.A.I., Montreal, Can.
Crain, M.D., St. Louis.
Crame, L.M., Saratoga, N.Y.
Crandall, J.M., 12 Clinton st., N.Y.
Crocker, F.B., N.Y.C.
Cross, C.R., Boston.
Crow, E. & Co., 254 W. 18th st., N.Y.C.
Cullen, Y.A., 59 S. 4th st., Phila.
Cumming, G., 219 E. 18th st., N.Y.C.
Cummings, E.F., 195 Broadway, N.Y.C.
" & Brinkerhoff, N.Y.C.
" & Rose, 113 N. 8th st., St. Louis.
Curtis, C.G., N.Y.C.
" L.E., 120 Broadway, N.Y.C.
Cushing, F.W., Postal Tel'g. Co., 49 Broadway, N.Y.C.
Cuttress, C., Duxbury, Mass.

D.

Draft, L., Greenville, N.J.
Dallas, J., Newark, N.J.
Dana, R.K., N.Y.C.
David, T.B.A., W.U. Tel'g. Co., Pittsburgh,
Davis, A.G., Baltimore.
" C.H., Washington, D.C.
" J.A., Phila.
D'Infreville, G., 195 Broadway, N.Y.C
Dealy, W.J., M., W.U. Tel'g. Co., 195 Broadway, N.Y.C.
Delaney, P. B., 84 Broad st., N.Y.C.
Denver, W.J., Springfield, Mass.
Dewar, D., Indianapolis, Ind.
Dickerson, E.N., Jr., N.Y.C.
Dickson, W.L.K., 65 5th ave., N.Y.C.
Dillore, R.F., Savannah, Ga.
Dimock, A.W., N.Y.C.
Dion, C., Montreal, Can.
Dodge, E.C., Brush Elec. Co., Chattanooga, Tenn.
Dods, P., 385 Bridge st., Brooklyn.
Dolan, T., 195 Broadway, N.Y.C.
Dolbear, A.E., Somerville, Mass.
Doolittle, T.B., Bridgeport, Conn.
Doremus, C.A., N.Y.C.
Douglass, F.A., Lockport, N.Y.
Downer, D.R., Produce Ex., N.Y.C.
Downs, F.E., 550 Washington st., Boston.
" L.N., Boston.
Drawbaugh, D., Eberly's Mills, Pa.
Driver, A.J., Mex. Tel'g. Co., Galveston, Tex.
Du Rois, J.T., Haddonfield, N.J.
Duggan, P.S., Boston.
Durant, G.T., St. Louis.
Dusenbury, J.M., Buffalo, N.Y.
Dutton, A.W., Brush Elec. Co., Rio Janeiro, Brazil.
Duxbury, J.W., Providence, R.I.
Dwight, J.H., 195 Broadway, N.Y.C.
Dyer, R.N., N.Y.C.

E.

Eaton, Prof. A.K., Brooklyn.
" Maj. S.B., N.Y.C.
Eckert, E.A., N.Y.C.
" T.T., G.M., W.U. Tel'g. Co., 195 Broadway, N.Y.C.
" W.H., Greenwich and Liberty sts, N.Y.C.
Eddy, A.H., Hartford, Conn.
" L.D., Troy, N.Y.
Edgar, C.L., 65 5th ave., N.Y.C.
Edgerton, N.H., 1223 Chestnut st., Phila.
Edison, F.A., 65 5th ave., N.Y.C.
Edwards & Co., 41 Beaver st., N.Y.C.
Eils, B.E.J., Washington, D.C.
Einbigler, R., N.Y.C.

Elder, S., Cambridge, Mass.
Eldridge, S.W., Boston.
Ellett, G.C., Ogden, U.
Elms, J., Boston.
Emmet, H.L.,R., N.Y.C.
Evershed, T. Rochester, N.Y.
Ewing, C., Washington, D.C.

F.

Fahnestock, J., 170 S. Elliot st., Brooklyn.
Fairbanks, L.G., 17 State st., Boston.
Fairchild, S.B., St. Louis.
Fairman, J.F., Inventors' Institute, N.Y.C.
Fanyou, Dr., 193 6th ave., N.Y.C.
Farrar, T.A., Tucson, Ariz.
Farrington, G.K, Kerksville, Mo.
Fawcett, J., 589 Halsey st., Brooklyn.
Featherstonhaugh, J.D., Schenectady, N.Y.
Fenn, J.E., M., W.U. Tel'g. Co., 195 Broadway, N.Y.C.
Fessenden, G.B., 119 Devonshire st., Boston.
Field, S.D., 120 Broadway, N.Y.C.
Findlay, D.L., 195 Broadway, N.Y.C.
Finger, L., Melrose, Mass.
Fisher, T.H., 195 Broadway, N.Y.C.
Fiske, B.A. Lt., U.S.N., Astor House,N.Y.C.
Fitch, F.K., 40 Cortlandt st., N.Y.C.
" I.S., 8 Broad st., N.Y.C.
Fitzgerald, W.H., with Brush Elec. Co., Detroit, Mich.
Fleischmann, A.F., 1226 Chestnut st., Phila.
Fleming, M.A., 107 State st., Boston.
Flint, N.M., 200 Jeroleum st., Brooklyn.
Fonts, H.C., Trinity Mills, Tex.
Forbes, W.H., Boston.
Fox, E. & Co., 60 Duane st., N.Y.C.
Freeman, J.P., Chicago.
" W.K., 38 E. 14th st., N.Y.
French, W.A., Camden, N.J.
Friedel, C., Madison, Wis.
Frost, G.V.B., N.Y.C.
Fuller, C.S., Troy, N.Y.
" G.W., Norwich, Conn.
" J.B., N.Y.C.

G.

Gale, H.B., M.E., '83 (M.I. of T.), Boston.
Galloway, M.J., 1230 Walnut st., Phila.
Galpin, W.A., with Brush Elec. Co.,Cleveland,O.
Garber, J.L., Greenville, O.
Gardinier, G.W., 135 Broadway, N.Y.C.
Garratt, A.V., Boston.
Garrett, O., Boston.
" W.H., Greenville, Pa.
Gassett, O., Boston.
Geary, H.S., N.Y.C.
Geyer, W.E., Prof., Ph.D., '77 (S.I. of T.),Prof. of Elec., (S.I. of T.), Hoboken, N.J.
Gibbs, G.,M.E.,'82 (S.I. of T.), Edison Elec.Co., N.Y.C.
Gifford, Capt. H.N., Louisville, Ky.
Gile, J., South Bend, Ind.
Gilliland, E.T., Boston.
Gilligand, I.F., Indianapolis, Ind.
Gilmour, F.E., Brush Elec. Co., Savannah, Ga.
Gisborne, H., Battleford, Conn.
Glidden, C.J., Lowell, Mass.
Goebel, C.H., Phila.
Goff, E.H., Boston.
Goodsell, T., Syracuse, N.Y.
Goodyear, M.W., 7 Dey st., N.Y.C.
Gorn, L.W., Cincinnati.
Goss, L.W., Cincinnati.
Gould, A.T., with W. U. Tel'g. Co., Cinn., O.
Graham, A.C., N.Y.C.
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" W.J., Washington, D.C.
Greene, D.M., C.E., '51 (R.P.I.), Prof. Drawing (R.P.I.) & El.E., Troy, N.Y.
Greenfield, J.T., Brooklyn.
Greer, H., 122 E. 26th st., N.Y.C.
Gregory, F.W., 195 Broadway N.Y.C.
" H.T., Chelsea, Mass.
Griffin, R., Syracuse, N.Y.
Griscom, W.W., P. Elec. Dynamite Co., 224 Carter st., Phila.
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Guest, J.H., Brooklyn, N.Y.
Gullberg, C., Jersey City, N.J.

H.

Haggerty, G.A., 803 3d ave., N.Y.C
Haight, G.E., Hartford, Conn.
Haines Bros., 55 Broadway, N.Y.C.
" C.D., 55 Broadway, N.Y.C.
" E.T., 55 Broadway N.Y.C.
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Hall, C.C., Baltimore.
" H.D., 191 Greenwich st., N.Y.C.
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Hammond, C., St. Louis.
Hancock, W.J., Jr., Dublin, N.Y.
Hardy, M.A., Newport, R.I.
Harrington, F.W., Boston.
Harris, F.E., 54 Bromfield st., Boston.
Hasbrouck, R.M., C. & El. E., City E., Troy, N.Y.
Haskins, C.D., N.Y.C.
" C.H., Milwaukee, Wis.
Haveland, A.J., Fort Dodge, Ia.
Hayes, A.A., Washington, D.C.
" C.H., Ansonia, Conn.
Hazard, R.R., N.Y.C.
Healey, C.L., 120 Broadway, N.Y.C.
Hebard, G.W., N.Y.C.
Hellings, M.L., Key West, Fla.
Helmer, P., Clinton, Ia.
Henry, L.A., 657 6th ave., N.Y.C.
Hering, Prof. C.O., M.E., '80 (U. of P.), El.E., 112 N. 12th st., Phila.
Hewitt, R., Jr., N.Y.C.
Hicatzman, A.H., 346 Stricker st., Balto.
Higgs, P., 63 Kent st., Brooklyn.
Hill, E.A., Chicago.
" E., M., 300 W. 31st st., N.Y.C.
" W.N., Newport, R.I.

Himmer, V., N.Y.C.
Hinds, C.H., 418 W. 27th st., N.Y.C.
Hine, H., 59 Liberty st., N.Y.C.
Hinman, G., 187 Broadway, N.Y.C.
Hipp, W.S., Brush Elec. Co., Galveston, Tex.
Hoag, G.M., Brush Elec. Co., Evansville, Ind.
Hockett, J.E., Indianapolis, Ind.
Hockhausen, W., 66 Duane st., N.Y.C.
Hoenack, C.P., N.Y.C.
Hovenbergh, H.V., Elizabeth, N.J.
Holcomb, A.G., Danielsonville, Conn.
Holmes, Ed., N.Y.C.
Holt, A.J., Brush Elec. Co., Grand Rapids, Mich.
Holtzer, C.W. Brookline, Mass.
Hopkins, G.M., N.Y.C.
House, R.E., Binghampton, N.Y.
Houston, E.J., Prof. Phys., High School, Phila.
Hovey, W.A., Boston.
Howe, D.D., Schenectady, N.Y.
Howell, E.F., 195 Broadway, N.Y.C.
" J.W., '81 (S.I. of T.), El.E., Edison Lamp Co., Harrison, N.Y.
Howland, W., Watertown, N.Y.
Howser, G.W., Chicago.
Hoyt, W.H., 195 Broadway, N.Y.C.
Hubbard, C.W., Boston.
" G.G., Wash., D.C.
" W., Elgin, Ill.
Hudson, J.E., 95 Milk st., Boston.
Humans, W., Cambridgeport, Mass.
Hunt, W. T. D., New Britain, Conn.
Huntington, W. E., N. Y. C.
Hurston, J., N. Y. C.
Hussey, C. A., N. Y. C.

I.

Inge, G. W., G.P.R.R., Atlanta, Ga.
Insull, S., Edison Elec. Co., 65 5th ave, N. Y. C.
Ireland. A. J., Brush Elec. Co., Albuquerque, N. M.
Irwin, J. H., Morton, Pa.
Iselin, H. S., 43 Wall st., N. Y. C.

J.

Jackson, H. F., Schenectady, N. Y.
Jacques, W. W., A.B., '76 (M.I. of T.), El.E., 95 Milk st., Boston.
Jannus, F., Washington, D. C.
Jenkins, P. O., Washington, D. C.
Jenks, B. H., El. & M.E., Walnut Place, rear 319 Willings Alley, Phila.
Jenney, C. D., South Bend, Ind.
Jennings, C. C., Brush Elec. Co., Buffalo, N. Y.
Jensen, H., Bristol, Pa.
Jessup, B. H., 13 Dey st., N. Y. C.
Johnson, E H., 65 5th ave., N. Y. C.
Johnston, W. J., N. Y. C.
Jones, C. E., 51 W. 4th st., Cincinnati.
" C. H., Jr., Baltimore.
" F. W., 145 Broadway, N. Y. C.
" W., Rochester, N. Y.
Judah, C. S., 194 Nassau st., N. Y. C.

K.

Karr, J., 832 Broadway, N. Y. C.
Keck, I. P., Brush Elec. Co., Nashville, Tenn.
Keith, A., 28 Sudbury st., Boston.
" N. S., Cont., 237 Broadway, N. Y. C.
Kellogg, M. G., Hyde Park, Ill.
Kelly, J., M.E., '79 (S.I. of T.), Gold & Stock Telg. Co., N. Y. C.
" J. F., B.S., '78 (S.I. of T.), U.S. Elec. Light Co., N. Y. C.
Kennedy, T. G., 195 Broadway, N. Y. C.
Kennely, J., M., W. U. Telg. Co, London, O.
Kettell, J. F., Worcester, Mass.
Kinch, I. S., Supt. Telg., Albany, N.Y.
King, I., Ansonia, Conn.
" J. B., Brooklyn.
Kintner, C. J., Washington, D. C.
Kitee, I., Cincinnati, O.
Knight, F. B., N. Y. C.
" J. K., 1571 Broadway, N. Y. C.
" W. H., 633 "F" st., Washington, D. C.
Knowles, E. R., N. Y. C.
Knudson, A. A., 9 Nassau st., N. Y. C.

L.

Ladd, G. S., San Francisco
Lake, S. D., 55 Broadway, N. Y. C.
Lakin, J. A., Westfield, Mass.
Laland, H. W., Framingham, Mass.
Lancaster, J. H., 95 Liberty st., N. Y. C.
Landy, T. J., 195 Broadway N. Y. C.
Lane, T. A., Boston.
Larish, J. W., Buffalo, N. Y.
Law, M. D., Brush Elec. Co., Phila.
Lawson, G. W., Brooklyn.
Lazelle & Walker, 174 Centre st., N. Y. C.
Leary, W. A., Davenport, Ia.
Leavitt, J. W., 76 Wall st., N. Y. C.
Legg, W. A., N. Y. C.
Leitch, A. E., Dayton, O.
Leland, H. W., Jersey City, N. J.
Lentz, S. R., El.E., Ill. C.R.R., Arcola, Ill.
Leonard, H. W., 65 5th ave., N. Y. C.
Leslie, E A., 49 Broadway, N. Y. C.
Levison, W. G., 115 Nassau st., N. Y. C.
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Lipe, C. E., Syracuse, N. Y.
Little, G., Passaic, N. J.
Littlefield, W. D., Springfield, Mass.
Loane, H. E., Baltimore.
Lockwood, R. M. & Son., 22 New Church st., N. Y. C.
" T. D., Bell Telp. Co., 95 Milk st., N. Y. C.
" W. C., Brooklyn, N. Y.
Lounds, J. H., 138 E. 28th st., N. Y. C.
Low, J. B., Pulaski, N. Y.
Lowe, E. N., 2 Coenties Slip, N. Y. C.
Lüngen, A., N. Y. C.
Lugo, O., 4 University B'ldg., N. Y. C.
Lungren, C. M., N. Y. C.
Lyman, A. B. & Co., 36 S. Water st., Cleveland.
Lyne, L. F., Supt. J. C. Elec. Light Co., Jersey City, N. J.
Lytle, H. B., Boston.

M.

Mace, T., N. Y. C.
Madden, O. E., Boston.

Mahon, A., 637 "F" st., Washington, D. C.
Mailloux, C. O., N. Y. C.
Malia, W. A., Meeting st., Charleston, S. C.
Maloney, I. A., Washington, D. C.
Mansfield. G. W., E. M., '82 (M. I. of T.) El. E., Greenville, N. J.
Manypenny, C.L.,S.E.cor. 10th &Walnut., Phila.
Marean, M., Washington, D. C.
Markland, W. H., Brooklyn, N. Y.
Marshall, W., University B'ldg., N. Y. C.
Martin, T. C., N. Y. C.
Marx, M., 4 E. 14th st., N. Y. C.
Mason, F. A., Bridgeport, Conn.
" F. C., Brooklyn, N. Y.
Mastem, V. M., Rochester, N. Y.
Matney, W. D., Harvell, Ill.
Maxim, H., 59 Liberty st., N. Y. C.
Maynard, G. C., 1413 "G" st., Washington.
Mayor, G. A., Brush Elec. Co., Cleveland.
McColloh, C. F., Baltimore.
McDevitt, W., Phila.
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McEnroe, W. H., 195 Broadway, N. Y. C.
McGrath, W. J., Brush Elec. Co., 853 Broadway, N. Y. C.
McGrew, A. F., San Francisco.
McHugh, H. J., 62 Artillery st., Quebec, Can.
McKinstry, J. P., Cleveland, O.
McMahon, J. M., N. Y. C.
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Means, C. J., Boston.
Mensing, J. D. A., Rochester, N. Y.
Metcalf, W., M.E., '73 (W.F.I.), 140 Nassau st., N. Y. C.
Metzer, H., Pittsburgh, Pa.
Meyer, Prof. A. M., El. E., (S.I. of T.), Hoboken, N. J.
" C. W., 11 Dey st., N. Y. C.
Miller, J. A., N. Y. C.
" T. N., Chillicothe, O.
Millis, St. Jno., N. Y. C.
Mitchell, D. B., 195 Broadway, N. Y. C.
" J. M., 45 Wall st., N. Y. C.
" Vance & Co., 836 Broadway, N. Y. C.
Moffatt, J., 195 Broadway, N. Y. C.
" R. R., Brooklyn.
Moore, A. M., 320 Devonshire st., Boston.
" F. L., C.E., '67 (R.P.I.), El.E., Poughkeepsie, N. Y.
" M. F., N. Y. C.
Morey, L. G., 1413 Chestnut st., Phila.
Morris, R. H., 195 Broadway, N. Y. C.
" W. C., 22 N. Church st., N. Y. C.
Morrison, J. F., 7 South st., Baltimore.
Mott, G. T., Phila.
Muller, G. H., 540 West st., N. Y. C.
Murdoch, J. B., Annapolis, Md.

N.

Nason, P. C., Franklin, Mass.
Nevins, F. F., Brooklyn, N. Y.
Newberry, Prof. J. S., N. Y. C.
Newton, O. K., 195 Broadway, N. Y. C.
Nicholas, E. B., Brush Elec. Co., Cleveland, O.
Nichols, G. P., M.E., '83 (W.F.I.), El.E., Lynn, Mass.
" J. V., Brooklyn, N. Y.
Nicholson, H. C., Kenton, Ky.
" W. A., C.E., '77 (R.P.I.), El.E., Beekman, N. Y.
Noonan, J. F., Paterson, N. J.
Nostrand, B. B. J., M.E., '78 (L.U.), U.S. Elec. Lighting Co., 59 Liberty st., N. Y. C.
Nourse, F. O., Boston.

O.

O'Conner, G., Brush Elec. Co., New Orleans.
O'Sullivan, M. F., Baltimore.
Odell, J. B., Chicago.
Olmstead, J., 7 Beekman st., N. Y. C.
Orton, B. F., Brush Elec.Co., E. Saginaw, Mich.

P.

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" N. 78 4th ave., N. Y. C.
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Parker, E. D., Salina, Kan.
" W. S., 216 Centre st., N. Y. C.
Partz, A., Phila.
Patee, T. H., Greencastle, Pa.
Patterson, W., Idlewood, Pa.
" W. R., Chicago.
Paul, W., Ansonia, Conn.
Peacock, O. H., Rochester, N. Y.
Peck, C. C., Middlebury, Vt.
Perkins, E. C., Providence, R. I.
Peyton, W. J., Washington, D. C.
Phelps, G. M., Jr., N. Y. C.
" W. C., Phila.
Phillips, A. D., Jersey City, N. J.
" E. B., Brush Elec. Co., Cleveland.
" E. F., Providence, R. I.
" J. H., 238 6th st., N. Y. C.
" W. P., 187 Broadway, N. Y. C.
Phipps, T. B., Brush Elec. Co., Yokohama, Japan.
Pickford, H., Chelsea, Mass.
Pierson, E. M., 143 Centre st., N. Y. C.
Pinkham, C. S. & Co., 432 Walnut st., Phila.
Pippitt, A. R., St. Louis.
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ELECTRICAL FORMULÆ.*

CARL O. HERING, El. E., '80 (U. of P.).

The units used in electrical calculations are as follows:

Ampère—the unit of current strength—generally represented by C.

Volt—the unit of electro-motive force—generally represented by E.

Ohm—the unit of resistance—generally represented by R.

Coulomb—the unit of quantity—generally represented by Q. Another unit of quantity is the "*ampère-hour*." Let it be represented by Q'.

Farad—the unit of capacity—generally represented by $\mathbf{C}$. As this is a very large unit, the millionth part of it is generally used, and is called a *micro-farad*.

Volt-coulomb—the unit of work—sometimes called a *Vomb*. Let it be represented by W.

Volt-ampère or *Ampère-volt*—the unit of power—sometimes called a *Watt*. Let it be represented by P.

The following relations exist between these units:

The strength of a current which has an electro-motive force of one volt and passes through a resistance of one ohm, is one ampère.

A coulomb is the quantity of electricity which passes through a circuit in one second when the current strength is one ampère; therefore, an ampère is equal to a coulomb per second. The quantity which passes in one hour when the current strength is one ampère, is an ampère-hour, and is equal to $60 \times 60 = 3600$ coulombs.

A farad is the capacity of a condenser which is charged to one volt with one coulomb.

A volt-coulomb is the amount of work done when one coulomb falls through a difference of potential or an electro-motive force of one volt.

A volt-ampère is the amount of power developed by a current of one ampère having an electro-motive force of one volt. As an ampère is a coulomb per second, a volt-ampère, is a volt-coulomb per second.

Using letters to represent the units, these relations may be expressed by the following formulæ, in which t represents one second and T one hour.

$$C = \frac{E}{R} \qquad Q = Ct \qquad Q' = Ct \qquad \mathbf{C} = \frac{Q}{E}$$

$$W = QE \qquad P = CE$$

As these relations contain no coefficient other than unity, the letters may represent any quantities given in terms of those units. For example, if E represents the number of volts electro-motive force, and R the number of ohms resistance in a circuit, then their ratio $\frac{E}{R}$ will give the number of ampères current strength in that circuit.

The above six formulæ can be combined by substitution or elimination so as to give the relations between any of the quantities. The most important of these are the following:

$$Q = \frac{E}{R}t \qquad \mathbf{C} = \frac{C}{E}t \qquad W = CEt = \frac{E^2}{R}t = C^2 Rt = Pt$$

$$Q = \frac{E^2}{R} = C^2R = \frac{W}{t} = \frac{QE}{t}$$

These are true, whether the letters represent the units or quantities measured in terms of these units. In the latter case the following are also true:

$$Q = 3600\,Q' \qquad W = 3600\,Q'E \qquad P = \frac{3600\,Q'E}{t}$$

besides all other combinations of these with those above.

The values of these practical units in terms of the absolute or C. G. S. (centimeter-gram-second) units is as follows:

1 ampère	$= 10^{-1}$ C. G. S. units.		1 coulomb	$= 10^{-1}$ C. G. S. units.	
1 volt	$= 10^{8}$ " "		1 farad	$= 10^{-9}$ " "	
1 ohm	$= 10^{9}$ " "		1 Volt-coulomb	$= 10^{7}$ " "	

1 volt-ampère $= 10^7$ C. G. S. units.

The following tables give the numerical equivalents of the different units of mechanical and electrical energy.

They give the *actual* equivalents, and, therefore, do not take into account the loss in converting one kind of energy into another, as that is dependent upon the particular machine used.

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EQUIVALENTS OF WORK.

WORK = POWER×TIME.

(Heat, being only another form of work, is included in the general term, *work*.)

			Logarithm.
1 volt-coulomb =	1.0000000	volt-ampère per second	0.0000000
	.737324	foot-pounds	$\bar{1}$.8676580
	.101937	kilogrammetres	$\bar{1}$.0083310
	.00095508	pound-Fahr. unit of heat	$\bar{3}$.9800407
	.00053060	pound-centrigrade "	$\bar{4}$.7247682
	.00024067	kilogr.-centigrade "	$\bar{4}$.3814342
	.00134059	horse-power per second	$\bar{3}$.1272954
	.000022343	" per minute	$\bar{5}$.3491441
	.00135916	force-de-cheval* per second	$\bar{3}$.1332698
	.0000226526	" per minute	$\bar{5}$.3551185
1 volt-ampère per second =	1.0000000	volt coulomb	0.0000000
1 foot-pound =	1.35626	vol-coulombs	.1323420
1 killogrammetre =	9.810000	"	.9916690
1 pound-Fahr. unit of heat =	1047.030	"	3.0199593
1 pound-centigrade " =	1884.655	"	3.2752318
1 kilogr -centigrade " =	4154.950	"	3.6185658
1 horse-power per second =	745 941	"	2.8727046
" per minute =	44756.47	"	4.6508559
1 force-de-cheval* per second =	735.750	"	2.8667302
" per minute =	44145.00	"	4.6448815

EQUIVALENT OF POWER.

$$\text{POWER} = \frac{\text{WORK}}{\text{TIME}}$$

			Logarithm
1 volt-ampère =	1.00000	volt-coulomb per second	0.0000000
	.00134059	horse-power	$\bar{3}$.1272954
	.00135916	force-de-cheval*	$\bar{3}$.1332698
	.737324	foot-pounds per second	$\bar{1}$.8676580
	44.23944	" per minute	1.6458093
	2654.3664	" per hour	3.4239606
	.101937	kilogrammetres per second	$\bar{1}$.0083310
	6.11622	" per minute	.7864823
	366.9732	" per hour	2.5646336
	.00095508	pound-Fahr. units of heat per second	$\bar{3}$.9800407
	.0573048	" per minute	$\bar{2}$.7581920
	3.438288	" per hour	.5363433
	.00053060	pound centigrade units of heat per second	$\bar{4}$.7247682
	.0318360	" per minute	$\bar{2}$.5029195
	1.910160	" per hour	.2810708
	.000240670	kilogram-centigrade units of heat per second	$\bar{4}$.3814342
	.0144402	" per minute	$\bar{2}$ 1595855
	.866412	" per hour	$\bar{1}$.9377368
1 volt-coulomb per second =	1.000000	volt-ampère	0.0000000
1 horse-power =	745 941	volt-ampères	2.8727046
1 force-de-cheval* =	735.750	"	2.8667302
1 foot-pound per second =	1.35626	"	.1323420
" per minute =	.0226043	"	$\bar{2}$.3541907
" per hour =	.0003767380	"	$\bar{4}$.5760394
1 kilogrammetre per second =	9 81 10000	"	.9916690
" per minute =	.163500	"	$\bar{1}$.2135177
" per hour =	.00272500	"	$\bar{3}$.4353664
1 pound-Fahrenheit unit of heat. per second =	1047.030	"	3.0199593
" per minute =	17.4505	"	1.2418080
" per hour =	.290842	"	$\bar{1}$.4636567
1 pound-contigrade unit of heat per second =	1884.655	"	3.2752318
" per minute =	31.41091	"	1 4970805
" per hour =	.523515	"	$\bar{1}$.7189292
1 kilogram-centigrade unit of heat per second =	4154.950	"	3.6185658
" per minute =	69.2492	"	1.8404145
" per hour =	1.154153	"	.0622632

* 1 force-de-cheval or French horse-power = 75 kilogrammetres per second.

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HYDRAULIC FORMULÆ.

NOMENCLATURE.

a = the nominal sectional area of the orifice or of the water in the stream or pipe in square feet.

c = a coefficient of variable value depending on local conditions.

d = interior diameter of pipe in feet.

$G = \frac{h}{l}$ = the hydraulic gradient = sin. of angle between surface and horizon.

h = head, or height of fall, or slope of surface in feet.

Z = length of conduit or channel, in feet.

n = the roughness of the wetted perimeter.

P = the length of the wetted perimeter.

Q = quantity discharged in cubic feet per second.

$R \frac{a}{P}$ the hydraulic mean depth or radius.

v = mean velocity in feet per second.

The *general formulas* for the flow of water in open channels are $v = c\sqrt{R.G.}$ and $Q = av$. Their application can only be successfully made after obtaining all the data available in each case. Of the many forms in which the value of v are expressed, that of KUTTER appears to be most satisfactory; it is:

$$v = \left\{ \frac{41.66 + \frac{1.8113}{n} + \frac{.002807}{G}}{1 + \left(41.66 + \frac{.002807}{G}\right)\frac{n}{\sqrt{R}}} \right\} \sqrt{RG} = c\sqrt{RG}.$$

As this formula is too complicated for ordinary use, it has been converted into a graphical diagram, from the curves of which the required values may be taken rapidly.* The values of n are as follows:

For well-planed timber	.009	Good rubble masonry	.017
" plaster or neat cement	.010	Well rammed gravel	.020
" " 2 parts cement	.011	Earth free from stones, etc.	.025
" unplaned timber	.012	Stoney soil with few plants	.030
" brickwork	.013	Channels greatly impeded by detritus and vegetation	.035
" canvass lining	.015		

In pipes flowing full R, $= \frac{a}{P.}$ becomes, $\frac{\text{area}}{\text{circum.}} = \frac{\pi d^2}{4\pi d} = \frac{d}{4}$ hence $v = c\sqrt{G.\frac{d}{4}} = \frac{c}{2}\sqrt{G.d}$ and $Q = \frac{a\,c}{2}\sqrt{G\,d}$. but $a = \frac{\pi d^2}{4}$ hence $Q = \frac{.7854\,c}{2}\sqrt{G\,d^5}$.

Mr. Downing† gives for c a value 100, hence the formula becomes $Q = 39.27\sqrt{G\,d^5}$ in cub. ft. per second. In gallons per minute $Q = 17.03\sqrt{G\,d^5}$.

SCOURING ACTION OF WATER.

Velocity in feet.				
PER SECOND.	PER MINUTE.	PER HOUR.	MILES PER HOUR.	Erosive Action.
0.50	30.	1800.	$\frac{1}{4}$	Will not remove compact clay.
0.66	40.	2400.	$\frac{1}{2}$	Erodes coarse sand.
1.00	60.	3600.	$\frac{3}{4}$	" fine gravel.
2.00	120.	7200.	$1\frac{2}{3}$	" pebbles, 1 inch in diameter.
3.00	180.	10800.	2	" small stones $1\frac{1}{4}$ inches "

* See Hering on the Flow of Water, in Trans. Am. Soc. of C. E., Vol. VIII., No. 1.

† Elements of Practical Hydraulics, Part I.—DOWNING.

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4. Francis C. Dade, '49, special duty, Dela. Iron Works.
5. Montgomery Fletcher, '50, Member Board of Inspection, Cal.
6. David B. Macomb, '49, Navy Yard, Boston, Mass.
7. Charles H. Loring,* '51, Chief Bureau of Steam Engineering.
8. Alexander Henderson, '51, Member Advisory Board.
9. Stephen D. Hibbert, '51, Navy Yard, Norfolk, Va.
10. William S. Stamm, '51, special duty, Wilmington, Del.

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2. George R. Johnson, '52, Lancaster.
3. William B. Brooks, '52, Navy Yard, Portsmouth, N. H.
4. John W. Moore, '53, Shelving Rock Post-office, N. Y.
5. Thos. Williamson, '53, Fleet Engineer, Pacific Station.
6. William J. Lamdin, '51, Perryville, Md.
7. Charles H. Baker, '55, Navy Yard, Washington, D. C.
8. George F. Kutz, '56, Navy Yard, Mare Island.
9. Andrew J. Kiersted, '56, Navy Yard, League Island.
10. William W. Dungan, '56, Member Board of Examiners.
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10. David Smith, '59, Navy Yard, Washington
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16. Peter A. Rearick, '60, Juniata.
17. George W. Sensner, '60, sick-leave.
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19. William S. Smith, '61, Washington, D. C.
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23. Isaac R. McNary, '58, special duty, new cruisers.
24. Alfred Adamson, '61, Fond du Lac, Wis.
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27. Edwin Wells, '61, Pottstown, Penn.
28. George P. Hunt, '61, Member Experimental Board.
29. George W. Melville, '61, Inspector of Coal, New York.
30. James Butterworth, '61, Receiving-ship Wabash.
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37. John P. Kelley, '61, Navy Yard, New York
38. John Lowe, '61, exp'l. duty, Navy Yard, Washington, D. C.
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40. Benjamin F. Wood, '61, ordered to the Kearsarge.
41. William H. Harris, '61, Bureau of Steam Engineering.

42. Albert J. Kenyon, '61, Alliance.
43. J. Van Hovenberg, '61, Iroquois.

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2. Charles H. Greenleaf, '61, Brookside, West Va.
3. George W. Hall, '61, Onondaigua Valley, N. Y.
4. John A. Scot, '61, Philadelphia, Penn.
5. John L. D. Borthwick, '61, Alert.
6. William L. Nicoll, 61, Receiving-ship Vermont.
7. Absalom Kirby, '61, Receiving-ship Wyandotte.
8. Chas. J. MacConnell, '61, Swatara.
9. George W. Stivers, '61, special duty with exp'l. Board.
10. William W. Heaton, '61, special duty, New York.
11. George E. Tower, '62, special duty, Chester, Penn.
12. Nathan P. Towne, '62, Tallapoosa.
13. James Entwistle, '61, special duty, Bristol, R. I.
14. Hugh H. Cline, '61, Mohican.
15. Ralph Aston, '61, ordered to the Kearsarge,
16. Luther R. Harvey, '62, Navy Yard, Mare Island, Cal.
17. David Jones, '62, Kansas Normal College.
18. James H. Chasmar, '62, Navy Yard, New York.
19. Arthur Price, '62, Woodside, (L.I.), N. Y.
20. Edward A. Magee, '62, Training-ship Minnesota.
21. John F. Bingham, '62, Quinnebaug.
22. William A. Windsor, '62, Tennessee.
23. George W. Roche, '62, Despatch.
24. H. Schuyler Ross, '62, Monocacy.
25. Charles R. Roelker, '62, Advisory Board.
26. James J. Barry, '62, Trenton.
27. John Pemberton, '62, Omaha.
28. Jefferson Brown, '62, special duty, New York.
29. John D. Ford, '62, Manual Tran'g School, Baltimore.
30. Jonathan M. Emanuel, '62, Philadelphia.
31. John C. Kafer, '63, Bureau Steam Engineering.
32. William A. H. Allen, '63, Bureau Steam Engineering.
33. John L. Hannum, '63, Pinta.
34. John W. Gardner, '63, Iroquois.
35. Albert C. Engard, '63, Shenandoah.
36. John A. B. Smith, '63, Navy Yard, Norfolk, Va.
37. Robert D. Taylor, '63, Navy Yard, Washington.
38. Conr'd J. Habighurst, '63, special duty, Philadelphia.
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40. Robert Crawford, '63, preparatory orders for sea.
41. Robert W. Milligan, '63, Tennessee.
42. Charles F. Nagle, '63, special duty, New York.
43. George W. Baird, '63, Fish Comm'n steamer Albatross.
44. William A Mintzer, '63, Marion.
45. Richard Inch, '63, Yantic.
46. Harrie Webster, '64, Georgetown, D. C.
47. Herschel Main, '66, Coast Survey steamer Bache.
48. Holland N. Stevenson, '66, Coast Survey, steamer Patterson.
49. Julien S. Ogden, '66, Ranger.
50. Charles W. Rae, '66, Lancaster.
51. George H. Kearny, '66, experimental duty, New York.
52. William S. Moore, '66, Ossipee.
53. Thomas J. W. Cooper, '63, iron-clads, City Point, Va.
54. George Cowie, Jr., '70, Coast Survey steamer Blake.
55. Charles P. Howell, '67, Alert.
56. James H. Perry, '70, Navy Yard, New York.
57. Warner B. Bayley, '70, Pensacola.
58. John A. Tobin, '70, Powhatan.
59. Albert F. Dixon, '71, Michigan.
60. William Rowbotham, '61, Galena.
61. Joseph P. Mickley, '64, Powhattan.
62. William H. Nauman, '72, Bureau Steam Engineering.
63. Francis M. Ashton, '73, special duty, League Island.

Passed Assistant Engineers, with the Relative Rank of Lieutenant (Junior Grade).

64. Robert R. Leitch, '71, Navy Yard, Washington, D.C.
65. Robert W. Galt, '71, Navy Yard, Norfolk, Va.
66. Henry T. Cleaver, '71, Trenton.
67. Lucius W. Wooster, '71, Gibbsboro, N.J.
68. John K. Barton, '71, Naval Academy.
69. Robert G. Denig, '71, special duty, Hamilton College, N.Y.
70. Henry Herwig, '74, Bureau Steam Engineering.
71. Nicholas H. Lamdin, '63, Wachusett.
72. Asa M. Mattice, '72, Juniata.
73. George B. Ransom, '71, Omaha.
74. William C. Eaton, '72, Alliance.
75. Alfred B. Canaga, '72, Lancaster.
76. Abraham V. Zane, '71, Northern Alaska Expedition.
77. John R. Edwards, '71, Palos.
78. Frank J. Hoffman, '72, special duty, Board Examing Engineers.
79. Stacy Potts, '71, Pensacola.
80. Albert B. Willitts, '72, Hartford.
81. Horace E. Frick, '75, sick leave.
82. J. P. Stuart Lawrence, '75, special duty, Navy Department.
83. Isaac S. K. Reeves, '75, Fish Commission str. Fish Hawk.
84. George D. Strickland, '76, Navy Yard, Mare Island, Cal.
85. Wythe M. Parks, '77, Naval Academy.

1. Henry C. Baughman, '75, Petersburg, Va.
2. Wilmer O. Chrisman, '77, leave of absence.

Assistant Engineers, with the Relative Rank of Ensign.

3. Frank H. Bailey, '73, leave of absence.
4. William L. Cathcart, '73, Ossipee.
5. George S. Willits, '73, Marion.
6. Walt F. Worthington, '73, leave of absence.
7. William M. Little, '72, special duty, Worcester Free School.
8. William B. Boggs, '71, Tennessee.
9. Edward R. Freeman, '73, Trenton.
10. Theo. F. Burgdorff, '73, Iroquois.
11. William R. King, '72, Hartford.
12. Frank H. Eldridge, '72, preparatory orders for sea.
13. George H. T. Babbitt, '73, Naval Academy.
14. Charles C. Kleckner, '71, Wachusett.
15. Edgar T. Warburton, '72, coast survey steamer Hassler.
16. Alberto de Ruiz, '73, Ranger.
17. William R. Dunning, '73, special duty, Wilmington, Del.
18. Robert I. Reid, '73, coast survey steamer McArthur.
19. Reynold T. Hall, '80, Powhattan.
20. Ira N. Hollis, '74, Hartford.
21. Franklin J. Schell, '74, Naval Academy.
22. Henry W. Spangler, '74, Tennessee.
23. Goold H. Bull, '74, special duty, University of Penn.
24. Robert S. Griffin, '74, special duty, Advisory Board.
25. George W. McElroy, '74, Adrian, Mich.
26. Mortimer E. Cooley, '84, preparatory orders for sea.
27. Frank W. Bartlett, '74, Kearsarge.
28. Frederick C. Bieg, '74, Lancaster.
29. Howard Gage, '74, Swatara.
30. Joseph R. Wilmer, '74, Yantic.
31. John L. Gow, '74, ordered to Naval Academy.
32. George E. Burd, '74, Shenandoah.
33. Walter M. McFarland, '75, preparatory orders for sea.
34. Benjamin C. Bryan, '75, Shenandoah.
35. Edward O'C. Acker, '75, Bureau of Steam Engineering.
36. Harold P. Norton, '74, special duty, Advisory Board.
37. Clarence A. Carr, '75, preparatory orders for sea.
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77. William C. Herbert '79, West Philadelphia.
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4. Theo. D. Wilson,* Chief Bureau of Construction.
5. Philip Hichborn, Navy Yard, Washington

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7. Wm. L. Mintonye, Navy Yard, Portsmouth, N.H.
8. George R. Boush, Navy Yard, Boston
9. Robert W. Steele, special duty, N.Y.
10. William H. Varney, special duty, Iron clads, Chester, Penn.
11. George F. Mallett, special duty, Navy Yard, Norfolk, Va.

* Chief Constructor with relative rank of Commodore.

Assistant Naval Constructors, with the Relative Rank of Lieutenant (Junior Grade).

1. John F. Hanscom, special duty, Chester, Pa.
2. John B. Hoover, special duty, Chester, Pa.
3. Joseph Feaster, Navy Yard, Mare Island.
4. Richard Gatewood, special duty with Advisory Board.
5. Francis T. Bowles, Recorder, Advisory Board.
6. Jos. H. Linnard, Polytechnic School, Paris.
7. Jos. J. Woodward, Polytechnic School, Paris.
8. Lewis Nixon, leave of absence.

RELATIVE VALUE AND LIFE OF CROSS-TIE TIMBER.

(From a report by Dr. F. B. Hough to the Dep't. of Agriculture.)

KINDS OF TIMBER.	AVERAGE DURABILITY IN YEARS.	AVERAGE PRICE PER TIE, IN CENTS.
Oak (*in general*)	7.4	41.2
" (white)	7.3[1]	40.6[2]
" (post)	7.0	33.0
" (burr)	7.4	37.3
" (rock)	7.0	42.0[3]
" (red)	5.0	27.0
" (chestnut)	7.1	28.0
" (black)	4.5	43.0
Pine (southern)	6.5	37.0
" (white)	6.5	31.5
Cedar[4] (white)	11.8	34.0
" (red)	17.4	
Cypress	8.7	
Ash (white)	4.3	
" (black)	3.8	
Cherry	6 to 10	
Red wood (Cal.)	11[5]	40

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2 " of 173 cases.
3 " of 18 cases.
4 Too soft for heavy freights.
5 In a dry climate.

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Cedar,	Fir,	Coffeenut,
Tamarack,	Spruce,	Mulberry,
Cypress,	Beech,	Mosquit.

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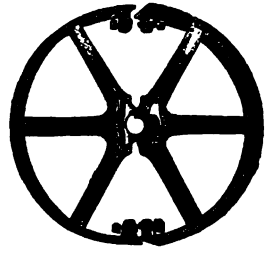

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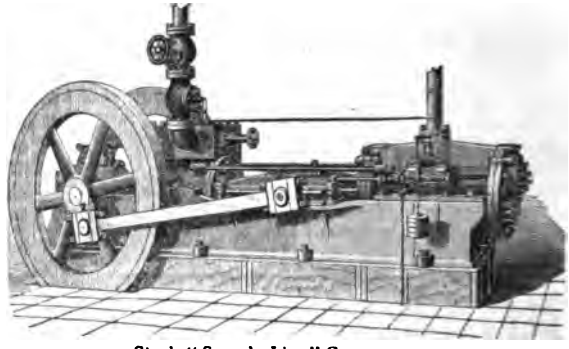

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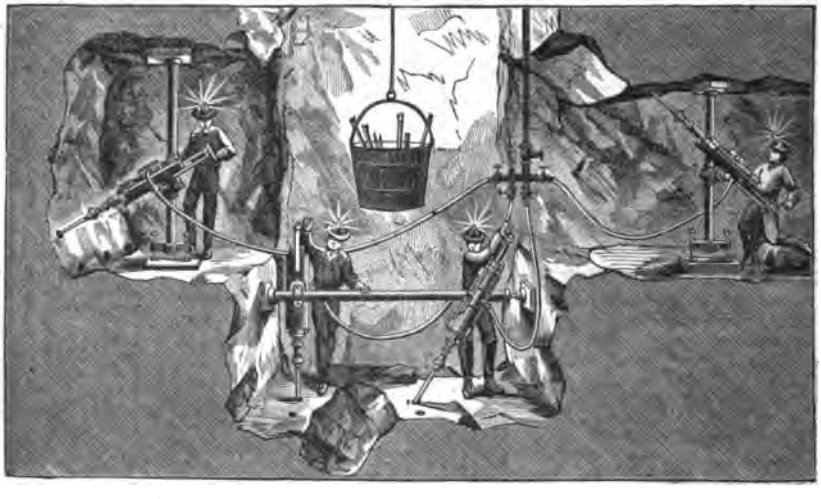

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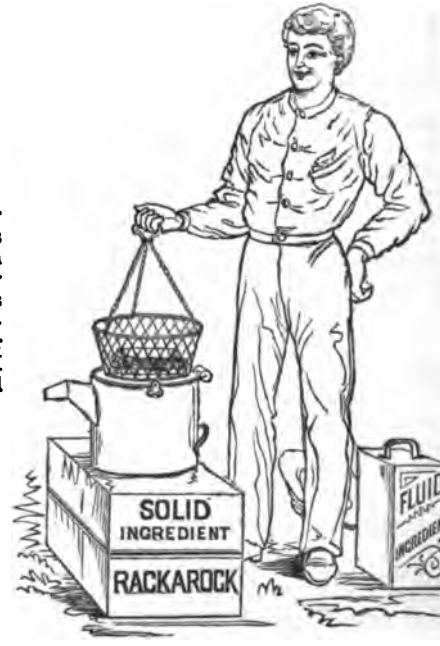

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Showing the number of units of different denominations

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1.	1/864/760	116.	186.6821	9280.000	37120.00
2.	1/990/880	33.	53.1078	2640.000	10560.00
3.	1/800/800	20.	32.18663	1600.000	6400.00
4.	1/900/000	18.9393	30.4791	1515.151	6060.60
5.	1/013/760	16.	25.7492	1280.000	5120.00
6.	1/000/000	15.7828	25.3992	1262.624	5046.50
7.	1/833/880	13.	20.9209	1040.00	4160.00
8.	1/811/008	12.8000	20.5994	1024.000	4096.00
9.	1/760/320	12.	19.3129	960.000	3840.00
10.	1/696/960	11.	17.7023	880.00	3520.00
11.	1/635/000	10.0221	16.1286	801.768	3207.07
12.	1/633/600	10.	16.0932	800.000	3200.00
13.	1/600/000	9.4696	15.2398	757.575	3030.30
14.	1/500/480	8.	12.87456	640.000	2560.00
15.	1/500/000	7.8914	12.6996	631.313	2525.25
16.	1/448/320	7.	11.2651	560.00	2240.00
17.	1/400/000	6.3131	10.1597	505.050	2020.20
18.	1/380/160	6.	9.65587	480.000	1920.00
19.	1/375/000	5.9185	9.5239	473.480	1893.92
20.	1/316/800	5.	8.04664	400.000	1600.00
21.	1/300/480	4.7348	7.61992	378.780	1515.15
22.	1/253/440	4.	6.43732	320.00	1280.00
23.	1/240/000	3.7878	6.09570	303.030	1212.12
24.	1/200/800	3.15656	5.07985	252.525	1010.10
25.	1/190/080	3.	4.82793	240.000	960.00
26.	1/160/000	2.5252	4.0638	202.020	808.08
27.	1/150/000	2.36742	3.80496	189.393	757.57
28.	1/126/720	2.	3.21866	160.000	640.0
29.	1/150/000	1.89393	3.05784	151.515	606.06
30.	1/190/080	1.57828	2.53995	126.262	505.05
31.	1/80/000	1.2626	2.0319	101.010	404.04
32.	1/79/200	1.2500	2.01166	100.000	400.00
33.	1/76/200	1.21212	1.9604	96.967	387.87
34.	1/63/360	1.	1.6093	80.000	320.00
35.	1/60/000	0.94696	1.52392	75.757	303.03
36.	1/59/400	0.9375	1.50874	75.000	300.0
37.	1/50/000	0.78914	1.26996	63.131	252.52
38.	1/47/520	0.7500	1.20696	60.00	240.00
39.	1/40/000	0.63131	1.0159	50.500	202.02
40.	1/39/600	0.6250	1.0058	50.000	200.0
41.	1/39/270	0.62138	1.	49.710	198.88
42.	1/39/600	0.6060	0.9752	48.484	193.93
43.	1/38/016	0.6000	0.9656	47.925	191.70
44.	1/31/680	0.5000	0.80465	40.00	160.00
45.	1/30/000	0.47348	0.7619	37.878	151.48
46.	1/25/344	0.4	0.64373	32.000	128.00
47.	1/25/000	0.39457	0.63967	31.565	126.26
48.	1/23/760	0.37500	0.60349	30.000	120.00
49.	1/21/120	0.33333	0.53580	26.666	106.[illegible]

MAP EQUIVALENTS,

corresponding to one inch of map for various scales.

Meters to one inch.	Yards to one inch.	Feet to one inch.	No. of acres to the sq. inch.	Where Used.	No.
186682.18	204160.0	612480.0	. . . . .	Map of U. S. . .	1.
53107.86	58080.0	174240.0	. . . . .	Map of Pa. . . .	2.
32186.635	35200.0	105600.0	. . . . .	U. S. C. S. . . .	3.
30479.7	33333.3	100000.0	229567.	U. S. C. S. . . .	4.
25749.27	28160.0	84480.0	163840.	Δ India	5.
25399.2	27755.7	83333.3	159420.	U. S. C. S. . . .	6.
20920.9	22880.0	70640.	114555.	. . . . .	7.
20599.416	22528.0	67584.0	104845.	. . . . .	8.
19312.95	21120.0	63360.0	92160.	R. R. Va. . . .	9.
17702.3	19360.0	57080.0	74796.	. . . . .	10.
16128.6	17638.9	52916.6	64283.	U. S. C. S. . . .	11.
16093.29	17600.0	52800.0	64000.	U. S. Eng. . . .	12.
15239.8	16666.6	50000.0	57392.	U. S. C. S. . . .	13.
12874.65	14080.0	42240.0	40960.	Eng. Ord. Sur. .	14.
12699.6	13888.8	41666.6	39855.	U. S. C. S. . . .	15.
11265.1	12320.0	36960.	31360.	. . . . .	16.
10159.7	11111.1	33333.3	25507.	U. S. C. S. . . .	17.
9655.87	10560.0	31680.0	23040.	Ludlow's Rep. .	18.
9523.9	10416.5	31250.0	22419.	U. S. C. S. . . .	19.
8046.64	8800.0	26400.0	16000.	Barnes' Pa. . .	20.
7619.9	8344.3	25000.0	14348.	U. S. C. S. . . .	21.
6437.333	7040.	21120.	10240.	. . . . .	22.
6095.7	6666.6	20000.0	9183.	U. S. C. S. . . .	23.
5079.8	5555.5	16666.6	6372.	U. S. C. S. . . .	24.
4827.93	5280.0	15840.0	5760.	Ludlow's Rep. .	25.
4063.8	4444.4	13333.3	4448.5	U. S. C. S. . . .	26.
3804.9	4166.6	12500.0	3587.	U. S. C. S. . . .	27.
3218.66	3520.0	10560.0	2560.	Sherman's March.	28.
3057.8	3333.3	10000.0	2296.	U. S. C. S. . . .	29.
2539.9	2777.7	8333.3	1594.	U. S. C. S. . . .	30.
2031.9	2222.2	6666.6	1112.	U. S. C. S. . . .	31.
2011.7	2200.0	6600.0	1000.	. . . . .	32.
1960.5	2133.3	6400.0	940.	Geol. Sur. . . .	33.
1609.3	1760.0	5280.0	640.0	Fremont	34.
1523.9	1666.6	5000.0	573.7	U. S. C. S. . . .	35.
1508.73	1650.0	4950.0	562.5	. . . . .	36.
1269.9	1388.8	4166.6	398.53	U. S. C. S. . . .	37.
1206.975	1320.	3960.	360.	. . . . .	38.
1015.9	1111.1	3333.3	255.05	U. S. C. S. . . .	39.
1005.83	1100.0	3300.0	250.00	U. S. C. S. . . .	40.
1000.0	1093.6	3280.8	247.00	. . . . .	41.
975.24	1066.6	3200.0	235.08	Geol. Surv. Pa. .	42.
965.59	1054.3	3163.0	229.67	. . . . .	43.
804.650	880.	2640.	160.0	. . . . .	44.
761.9	833.3	2500.	143.48	U. S. C. S. . . .	45.
643.728	704.0	2112.0	102.2	. . . . .	46.
639.673	694.4	2083.3	99.64	. . . . .	47.
603.487	660.0	1980.0	90.00	. . . . .	48.
535.897	586.6	1760.0	70.859	. . . . .	49.

TABLE OF

Showing the number of units of different denominations

No.	Scale.	Miles to one inch.	Kilometers to one inch.	Chains to one inch.	Poles to one inch.
50.	1/20,000	0.31505	0.50798	25.2525	101.01
51.	1/19,800	0.31250	0.50290	25.000	100.
52.	1/19,200	0.30303	0.48762	24.242	96.96
53.	1/18,818	0.29700	0.47796	23.760	95.04
54.	1/18,240	0.25000	0.40232	20.	80.
55.	1/18,000	0.23674	0.38099	18.9393	75.75
56.	1/11,800	0.18750	0.30174	15.	60.
57.	1/10,000	0.1578	0.25417	12.626	50.505
58.	1/9,600	0.15625	0.25100	12.500	50.
59.	1/9,200	0.15151	0.24376	12.121	48.484
60.	1/8,800	0.12500	0.20112	10.	40.
61.	1/7,200	0.1136	0.18378	9.0909	36.363
62.	1/6,200	0.09471	0.15285	7.5757	30.303
63.	1/6,040	0.09375	0.15092	7.5000	30.
64.	1/5,200	0.078913	0.12695	6.31313	25.252
65.	1/4,800	0.078123	0.12582	6.250	25.
66.	1/4,200	0.07575	0.121881	6.0606	24.242
67.	1/3,800	0.06250	0.100561	5.	20.
68.	1/3,200	0.05681	0.091391	4.5303	18.121
69.	1/3,168	0.05261	0.08463	4.2060	16.824
70.	1/3,168	0.05	0.080466	4.	16.
71.	1/3,000	0.04734	0.07610	3.7787	15.151
72.	1/2,970	0.04687	0.07541	3.75	15.
73.	1/2,600	0.03945	0.06396	3.1565	12.626
74.	1/2,200	0.03787	0.06098	3.0379	12.1515
75.	1/1,980	0.03125	0.05029	2.5	10.
76.	1/1,980	0.02020	0.032507	1.6016	6.406
77.	1/1,980	0.019728	0.031697	1.5767	6.307
78.	1/1,200	0.018939	0.030578	1.5151	6.060
79.	1/1,980	0.017046	0.027520	1.3636	5.454
80.	1/1,000	0.0157	0.0254	1.2626	5.0505
81.	1/990	0.01515	0.024376	1.2121	4.848
82.	1/840	0.013258	0.021399	1.06057	4.2420
83.	1/792	0.0125	0.02011	1.	4.
84.	1/790	0.01136	0.018378	0.9091	3.6363
85.	1/660	0.009471	0.015285	0.75757	3.0303
86.	1/590	0.0078913	0.012695	0.63131	2.5252
87.	1/480	0.007575	0.012188	0.60606	2.4242
88.	1/360	0.00568	0.009139	0.45303	1.8121
89.	1/300	0.004734	0.007610	0.37787	1.5151
90.	1/240	0.003787	0.006098	0.30379	1.2151
91.	1/192	0.003125	0.005029	0.25	1.
92.	1/159	0.001894	0.003057	0.15151	0.6060
93.	1/99	0.000947	0.001528	0.07575	0.3030
94.	1/80.37041	0.0006213	0.001	0.0497101	0.1988405
95.	1/88	0.000568	0.0009139	0.045303	0.181212
96.	1/528	0.0001894	0.0003057	0.015151	0.0606
97.	1/1	0.00001578	0.00002536	0.0012595	0.00505

MAP EQUIVALENTS,

corresponding to one inch of map for various scales.

Meters to one inch.	Yards to one inch.	Feet to one inch.	No. of acres to the sq. inch.	Where Used.	No.
507.98	555.5	1666.6	63.72	. . . . .	50.
502.906	550.0	1650.0	62.50	U. S. C. S. . . .	51.
487.617	533.3	1600.0	58.767	. . . . .	52.
477.96	522.72	1568.1	56.45	U. S. C. S. . . .	53.
402.325	440.	1320.	40.00	. . . . .	54.
380.99	416.66	1250.	35.87	U. S. C. S. . . .	55.
301.744	330.	990.	22.475	. . . . .	56.
254.177	277.77	833.33	15.942	U. S. C. S. . . .	57.
251.004	275.	825.	15.625	. . . . .	58.
243.763	266.66	800.	14.070	2d Geol. Surv. Pa.	59.
201.125	220.	660.	10.	. . . . .	60.
183.782	200.	600.	8.264+	. . . . .	61.
152.854	166.66	500.	5.739+	. . . . .	62.
150.924	165.	495.	5.625+	. . . . .	63.
126.950	138.888	416.66	3.985+	U. S. C. S. . . .	64.
125.8238	134.166	412.50	3.906	. . . . .	65.
121.88175	133.333	400.	3.672	2d Geol. Surv. Pa.	66.
100.5625	110.	330.	2.5	. . . . .	67.
91.391	100.	300.	2.066+	. . . . .	68.
84.6334	92.592	277.7	1.7713+	U. S. C. S. . . .	69.
80.0466	88.	264.	1.6	. . . . .	70.
76.1057	83.333	250.	1.434+	. . . . .	71.
75.4138	82.5	247.5	1.406+	. . . . .	72.
63.9673	69.444	208.33	.9963+	U. S. C. S. . . .	73.
60.9811	66.666	200.	.9182+	U. S. C. S. . . .	74.
50.2906	55.55	166.66	.6376+	. . . . .	75.
32.5079	35.555	106.66	.2611+	U. S. C. S. . . .	76.
31.6973	34.7222	104.166	.2491+	U. S. C. S. . . .	77.
30.578	33.3333	100.	.229+	U. S. C. S. . . .	78.
27.520	30.	90.	.185+	. . . . .	79.
25.4177	27.777	83.333	.1594	. . . . .	80.
24.3763	26.666	80.	.146+	. . . . .	81.
21.4046	23.3333	70.	.112+	. . . . .	82.
20.1125	22.	66.	.100+	. . . . .	83.
18.3782	20.	60.	.0826+	. . . . .	84.
15.2854	16.666	50.	.0573+	. . . . .	85.
12.695	13.8888	41.666	.0398+	U. S. C. S. . . .	86.
12.18817	13.3333	40.	.0367+	. . . . .	87.
9.1391	10.	30.	.0206+	. . . . .	88.
7.61057	8.3333	25.	.0143+	. . . . .	89.
6.09811	6.6666	20.	.0092+	. . . . .	90.
5.02906	5.555	16.666	.00637+	. . . . .	91.
3.0578	3.3333	10.	.00229+	U. S. C. S. . . .	92.
1.52854	1.6666	5.	.00057+	. . . . .	93.
1.	1.0936	3.2809	.000247+	. . . . .	94.
0.91391	1.	3.	.000206+	. . . . .	95.
0.30578	0.3333	1.	.0000229+	. . . . .	96.
0.025368	0.02777	0.083	.000000158+	. . . . .	97.

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Bouldin, A., City S., 40 St. Paul st., Baltimore.
Bowles, R. C., C.E. & Co. S., Roskoe, Mo.
Bowman, W. S., Surv., Level, Md.
Boyd, W. J., Co.S., Mirabile, Mo.
Bougham, G. H., C.E., Asst. City S., Wilmington, Del.

Braddock, E., Surv., Medford, N.J.
Bradford, G. K., U. S., Dep'ty. Surv., 44 Natchez st., New Orleans.
Bradford, J. L., U. S. Depty. Surv., 44 Natchez st., New Orleans.
" S. K., U. S. Depty. Surv., Santa Fe, N. M.
Bradley, F. W., U. S. Depty. Surv., 610 Commercial st., San Francisco.
Bradt, J. C., Surv., Marcellus, Mich.
Braun, J. F., Surv. & A., 20 Carondelet st., New Orleans.
Breaux, J. E., U. S. Depty Surv., New Orleans.
Bredemeyer, W., U. S. Depty Surv., Salt Lake City, U.
Brewer, F., U. S. Depty. Surv., Custer City, Dak.
Brewster, O. H., U. S. Depty Surv., Box 2497, New Orleans.
Briggs, E. D., Co. S., Pomeroy, Wash. T.
Bright, M. M., Surv., San Antonio, Tex.
Bringhurst, R. W., U. S. Depty. Surv., Alexandria, La.
Britt, N. E., U. S. Depty. Surv., Salt Lake, U.
" R. H., Co. S., Cass Co., Mo.
Brittain, A., C. E., Asst. City S., City Hall, Montreal, Can.
Brock, C. C., Co. S., Waynesburgh, Pa.
Brockaway, H. S., Co. S., Tionesta, Pa.
Brooks, C. P., Ph. B., '70 (S. S. S.) U. S. Depty. Surv., Ashcroft, Col.
" J. B., U S. Depty. Surv., Ashcroft, Col.
Brown, C. K., Co. S., Trenton, Mo.
" G. H., Co. S., Washington, Pa.
" G. K., U. S. Depty. Surv., Santa Fe, N. M.
" G. R., Co. S., Shoal Creek, Ark.
" H. D., U. S. Depty. Surv., Cherokee, Ia.
" H. W., Asst. Surv., State Surv. Off., San Francisco.
" J. A., U. S. Depty. Surv., 610 Commercial st., San Francisco.
" J. C., U. S. Depty. Surv., New Orleans.
" E. M., U. S. Depty. Surv., Santa Fe, N. M.
" R. F., Surv., Lewisburg, Pa.
" R. H., U. S. Depty. Surv., Salt Lake, U.
" W. H., U. S. Surv. Gen., San Francisco.
Broyles, I. H., Co. S., Hartville, Mo.
Bruce, F. F., U. S. Depty. Surv., Leadville Col.
" H., U. S. Depty. Surv., Deadwood, Dak.
Bryden, C. H., U. S. Depty. Surv., Custer, Dak.
Buchanan, S. A., Co. S., Bellefontaine, O.
Buell, H. L., U. S. Depty. Surv., Animas Forks, Col.
Buettner, E., U. S. Depty. Surv., Salt Lake.
Bulkley, F. G., U.S. Depty. Surv., Leadville, Col.
Bull, H. E., Surv., Towanda, Pa.
Bullock, M.W., U.S. Depty. Surv., Howell, Mich.
Bulow, A., U. S. Depty. Surv., Napoleonville, La.
Burley, A., U. S. Depty. Surv., Santa Fe, N. M.
Burlingame, H. S., Co. S., Pleasant Mount, Mo.
Burns, J. C., Surv., Franklin Co., Pa.
Burr, C. H., U. S. Depty. Surv., Crested Butte, Col.
Burtis, H. I., Surv., Cookstown, N. J.
Butler, S., C. E., Surv., New Haven, Conn.
Bybee, F. E., Co. S., Harrisonville, Mo.
Byles, J. I., U. S. Depty. Surv., Iamny, La.

C.

Caldwell, A. J., Co. S., Boydsville, N. J.
Campbell, A. L., Co. S., Walterborough, S. C.
" J. T., C. E., Co. S., Indianapolis, Ind.
Canfield, R. C., U.S. Depty. Surv., St. Elmo, Col.
Cannon, L. H., U. S. Depty. Surv., Disco, Mich.
Carleton, G. H., Surv., 96 Wash. st., Chicago.
Carpenter, H. B., U. S. Depty. Surv., 610 Commercial st., San Francisco.
Carter, E. A., U. S. Depty. Surv., Plattsmouth, Neb.
" S., C. E., City S., Brunswick, Mo.
" S. J., Co. S., Keytesville, Mo.
" W. M., Surv., Mickleton, N. J.
Cathcart, S. B., U. S. Dept. Surv., Portland, Or.
" T. E., Co. S., Jarrettsville, Md.
Caudle, S. G., U. S. Depty. Surv., Portland, Or.
Chambers, S. H, Surv., Mount Holly, N. J.
Chancellor, K., Co. S., Quincy, Mo.
Chandler, J. C., Co. S., Emporium, Pa.
" M. S., U.S. Surv.Gen., St. Paul, Minn.
" W. P., U.S.Surv.Gen., Boise City, Ido.
Chapman, J. W., Co. S., Montrose, Pa.
" R. H., C. E., Co. S., Adelaide, Minn.
" T. W., Surv., Criglersville, Va.
Chappell, A. L., Surv., McBride, Mich.
Chase, A. E., U. S. Depty. Surv., Georgetown, Col.
" E., Co. S., Union, Or.
" E. E., C. E., '80 (M. I. of T.) U. S. Depty. Surv., Central City, Or.
Chatham, W. M., Surv., Lock Haven, Pa.
Chenington, W., Co. S., Warsaw, Mo.
Chillson, L. D., U. S. Depty. Surv., Tucson, Ariz.
Chipman, W., C. & M. E, '71 (McG. U.) C. E. & Surv., Brookville, Can.
Choice, H. B., Co. S., Fresno, Cal.
Chomeaus, H., Co. S., Mount Olive, Mo.
Christian, C. J., U. S. Dept. Surv., Leadville, Col.
Church, W. S., Jr., Surv., Pottsville, Pa.
Churchfield, P., U. S. Depty. Surv., Crested Butte, Col.
Clark, J., Co. S., Clayton, Ala.
" N., U. S. Depty. Surv., Portland, Or.
" S. C., Co. S., St. James, Minn.
" W. T., Surv., Forest Hill, Md.
Clement, J., Surv., Haddonfield, N. J.
" J. F., U. S. Depty. Surv., Glenwood Springs, Col.
Cloyd, W. W., Co. S., Fayette, Mo.
Cobb, F., Surv., Albion, Ido.
" L. S., Surv., Onondaga, Mich.
Coffman, L., Surv. Warrensburg, Mo.
Cole, M. H., Surv., Kreidersville, Pa.
Coleman, H. F., U. S. Depty. Surv., Santa Fe, N. M.
" R. H., Co. S., Leighton, Ala.
Collier, R., U. S. Depty. Surv., Portland, Or.
Collins, L. S., Co. S., Cherry Ridge, Pa.
Combacher J. F., Co. S., Somerset, Wis.
Combs, W. L., Co. S., Paris, Mo.
Conwell, M. C., C. E., City S., Wilmington, Del.
Cook, O. W., U. S. Depty. Surv., Santa Fe, N. M.

Cooke, C. S., Co. S., Canton, O.
" G. W., Co. S., Bowman's Creek, Pa.
" H. W., U. S. Depty. Surv., Portland, Or.
Coolbaugh, A. V., Surv., Stroudsburg, Pa.
Coombs, Jno., Co. S., San Jose, Cal.
Cooper, H. F., Surv., State Surv. Off., San Francisco.
Cornelius, G. O., Co. S., Warren, Pa.
Correntz, T., Surv., Milford, Minn.
Cotton, S. C., Co. S., Mt. Carroll, Ill.
Coulter, A. H., U. S. Depty. Surv., 610 Commercial st., San Francisco.
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Crawford, E., Co. S., Lincoln, Tenn.
" H. N., Co. S., Salisbury, Md.
Cress, B. L., U. S. Depty. Surv., Mitchell, Col.
Cross, J. A., Co. S., Van Buren Co., Mich.
Cullen, H. J., Co. S., Clanton, Ala.
Culver, J. P., U. S. Depty. Surv., Tucson, Ariz.
Cumming, A. E., U. S. Depty. Surv., Helena, Mont.
Cunningham, D. R., U. S. Depty. Surv., Santa Fe, N. M.
Curd, J., Depty. Co. S., Hannibal, Mo.
Cutler, D. Jno., Co.S., Prescott, Ark.

D.

Dampman, E., Co.S. & C.E., Barneston, Pa.
Dane, G. W., Surv., Pine Run, Mich.
Danon, E. C., Co.S., Werner, Wis.
Darly, T. L., U.S. Dep'ty. Surv., Leadville, Col.
David, F. J., Co.S., Lock Haven, Pa.
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Davis, B. E., Surv., Shiloh, N. J.
" C., Surv., 1846 Frankford ave., Phila.
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" W. J., U. S. Dep'ty. Surv., Santa Fe., N. M.
Day, S. E., U. S. Dep'ty. Surv., Buena Vista, Col.
D'Hemecourt, P. A., Surv., 26 Carondelet st., New Orleans.
DeLacy, W. W., U. S. Dep'ty. Surv., Helena, Mont.
Dean, D., Co.S., Hannibal, Mo.
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Denniston, H. G., U. S. Dep'ty Surv., Chihuahua, Col.
Devling, J., Co.S., Bellefonte, Pa.
Devoe, W. R., U.S. Dep'ty. Surv., Shreveport, La.
Dewey, C. E., U. S. Dep'ty Surv., Georgetown, Col.
" J. W., U. S. Dep'ty Surv., Ft. Benton, Mont.
Dickerson, J. B., Co.S., Salem, Mo.
" R. S., U.S. Dep'ty Surv., Portland, Or.
Dickinson, C. H., Co.S., Iberville, La.
Diehl, J. S., U. S. Dep'ty Surv., Santa Fe, N.M.
Dike, G. K., U. S. Dep'ty Surv., Grand Forks, Dak.
Dike, J. E., C.E., '76 (M.S.C.), U.S. Dep'ty Surv., Grand Forks, Dak.
Dixon, J. R., Surv., Charlevoix, Mich.
Dorr, F., Co.S., New London, Wis.
Doupe, J., C.E., '71 (Mc.G.U.), Surv., Manitoba, Can.
Dover, J. B., Co.S., Victoria, Mo.
Dowling, P. H., Surv., Rome, Mich.
Drake, A. P., Surv., Mason, Mich.
Dreibelbis, S. K., Co.S., Hamburg, Pa.
Drummond, D., U. S. Dep'ty Surv., Gold Hill, Col.
DuVal, H. S., U. S. Dep'ty Surv., Chattahoochee, Fla.
Duffy, A. J., Surv., Watsontown, Pa.
Duke, W. D., U. S. Dep'ty Surv., Terre aux Baufs, La.
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Dunlap, J. C., U. S. Dep'ty Surv., 610 Commercial st., San Francisco.
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Dyer, Wm., Surv., Medford, N. J.
Dyson, J., C.E., '78 (Cor.U.), U.S. Dep'ty Surv., Silverton, Col.

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Easley, A. F., U.S. Dep'ty Surv., Santa Fe, N.M.
" C. F., U.S. Dep'ty Surv., Santa Fe, N.M.
Eckert, J., Co.S., Union, Mo.
Edwards, W.S., U.S. Dep'ty Surv., Tucson, Ariz.
Elbrino, A., Dep'ty Co.S., Clayton, Mo.
Eldred, C. D., Surv., Williamsport, Lycoming Co., Pa.
Elliott, R., Co.S., Oronogo, Mo.
Ellis, S. C., C.E., Asst. City S., Boston.
Elms, G. O., U. S. Dep'ty Surv., Washington, La.
Elrick, T. E., Co.S., Saltsburgh, Pa.
Elwood, E. L., U. S. Dep'ty Surv., Santa Fe, N. M.
Engelbright, W. F., U. S. Dep'ty Surv., Nevada City, Cal.
Enslow, O. M., C.E., '80 (U. of C.), U. S. Dep'ty Surv., Oroville, Cal.
Ettinger, D. M., Surv., York, Pa.
Evans, J. W., U. S. Dep'ty Surv., Alma, Col.
" P. H. de L., Co.S., Moorhead, Minn.
" R., Co.S., Scranton, Pa.
Everly, A. J., Co.S., Plattsburg, Me.

F.

Fairfield, G. W., Co. S., Plattsmouth, Pa.
Farmer, J., Surv., McKee. Ky.
Farron, J. S. A., Surv., Parkersbugh, W. Va.
Fatout, H. B., C.E. & Co. S., Indianapolis, Ind.
Fellows, H. C., U.S. Dep'ty. Surv., Dubuque, Ia.
Fenton, F. A., Surv., 117 Market st., Camden, N. J.
Ferguson, D. S., Co. S., Greensburg, Pa.
" J. N., Co. S., Warrensburg, Mo.
" S. N., Surv., Greensburg, Westmoreland Co., Pa.
Ferrow, A. D., U. S. Dep'ty. Surv., Salt Lake.

Fessenden, C., U. S. Surv. Gen., Huron, Dak.
" G.A., U.S. Dep'ty. Surv., Huron, Dak.
Fine, E. E., U. S. Dep'ty. Surv., Galena, Dak.
Finley, J. J., U. S. Dep'ty. Surv., Gold Hill, Col.
Fisher, T. F., U.S. Dep'ty. Surv., Santa Fe, N.M.
Fisk, E. Y., Co. S., Stafford, Conn.
Fitch, H. L., U.S. Dep'ty. Surv., Tomichi, Col.
Fitzhugh, G., U.S. Dep'ty. Surv., Portland, Or.
" H., U.S. Dep'ty. Surv., Salt Lake.
" J., U. S. Dep'ty. Surv., Portland, Or.
Fitzpatrick, J. W., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
" T. J., C.E., '76 (U of C.), Surv., San Francisco.
Flanders, J. A., U.S. Dep'ty. Surv., New Orleans.
Flaville, W. H., C.E. & Surv., Chester, Pa.
Flood, G. E., Co. S., Columbia, Mo.
Follmar, J. R., Surv., Allenwood, Pa.
Foolkes, E. J., Surv., Houma, La.
Ford, A. P., Co. S., Trempealeau, Wis.
Forlong, G., C.E., '84 (McG. U.), Surv., Lachute, Can.
Forsyth, W., City Surv., Washington, D. C.
Fosdick, A. A., Co. S., Williams, Mich.
Foster, C. B., U. S. Dep'ty. Surv., Prescott, Ariz.
" C. M., U.S. Dep'ty. Surv., Baker City, Or.
" L. E. N., U. S. Dep'ty. Surv., Georgetown, Col.
" R. J., Surv., Coopersville, Mich.
Fox, C. J., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
E. A., C. E. & Surv., 94 La Salle st., Chi.
Frances, R., U. S. Dep'ty. Surv., Carancro, La.
Freeman, C., Co. S., Edenville, Mich.
" J. E., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
Frehsee, J., Co. S., Lockport, N. Y.
Fremaux, L. A., U.S. Dep'ty. Surv., Rayne, La.
French, L., Surv., Mt. Holly, N. J.
Frey, S. G., Co. S., Watsontown, Pa.
Fries, J. O., U. S. Dep'ty. Surv., Orlando, Fla.
Frisbee, G. R., Co. S., Middleburgh, La.
Frissell, N. C., Co. S., Oak Ridge, Mo.
Frost, N. S., U. S. Dep'ty. Surv., Tucson, Ariz.
Fry, L. R., U. S. Dep'ty. Surv., Gunnison, Col.
Fuie, W. J., U. S. Dep'ty. Surv., Gunnison, Col.
Fuller, W. A., C.E. & Surv., Liberty Hall, Conn.
Fulton, J. W., Co. S., Louisville, Kan.
Furgeson, J. N., Co. S., Warrensburg, Mo.
Fuss, J. J., U. S. Dep'ty. Surv., Santa Fe., N. M.

G.

Gannon, J. G., U. S. Dep'ty. Surv., Santa Fe, N. M.
Garber, J. H., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
Gardiner, J., U. S. Dep'ty. Surv., Tucson, Ariz.
" John, Surv., Mt. Laurel, N. J.
Gascon, H., U.S. Dep'ty. Surv., New Iberia, La.
" H., U.S. Dep'ty. Surv., New Iberia, La.
Gass, J. B., Co. S., Mexico, Mo.
Gates, A. S., C. E., '83 (I.I.U.), U. S. Dep'ty. Surv., Spearfish, Dak.
Gearhart, P. O., U.S. Dep'ty. Surv., Portland, Or.
Gilcrest, J., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
Foreman, C. W., U.S. Dep'ty. S., Bonanza, Col.
Gill, H. P., U. S. Dep'ty. Surv., Sante Fe, N.M.
" R. T., Co. S., Littleton, N. H.
Gillette, E., Jr., U. S. Dep'ty. Surv., Salt Lake.
Gillister, J. C., Co. S., New Store, Va.
Gilmore, A. J., Co. S., Uniontown, Pa.
Gleaves, J. M., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
Glover, J. R., U.S. Dep'ty. Surv., Boise City, Ido.
Goldthwaite, J. R., Co. S., Troy, Ala.
Goldsworthy, J., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
Goodale, O. C., Surv., Chesaning, Mich.
" S., Co. S., Chesaning, Mich.
Goodell, E. J., Surv., Ecorse, Mich.
Gould, F. H., C.E., '76 (P.M.A.), U. S. Dep'ty. Surv., 610 Commercial st., San Fran.
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" W. R., U. S. Dep'ty. Surv., Boise City, Ido.
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Grandjean, G. H., U. S. Dep'ty. Surv., Port Vincent, La.
Gravatt, H. C., Surv., Clarksburg, Pa.
Gravis, J. M., Co. S., Arcola, Mo.
Gray, J. B., Co. S., Cove Point, Md.
" J. W., U.S. Dep'ty. Surv., Tucson, Arizona.
Green, J. S., U.S. Dep'ty. Surv., Pueblo, Col.
" R. P., C. E., '80 (Cor. U.), U. S. Dep'ty. Surv., Rozeman, Mont.
T. D., C. E., '82 (McG. U.), Dom. Land Surv., Ottawa, Can.
Griffin, R., Co. S., Yorktown, Va.
Gripp, H. H., U.S. Dep'ty. Surv., Santa Fe, N.M.
Grude, E. C., U.S. Dep'ty. Surv., Helena, Mont.
Guiley, D. E., Co. S., Tawas City, Mich.

H.

Haas, E., Surv., Bordentown, N. J.
Hagerty, I. D., U. S. Dep'ty. Surv., Washington, La.
Haight, S. S., C.E. & City S., West Farms, N. Y. C.
Haines, A. H., Surv., Lumberton, N. J.
" F. B., Surv., Woodbury, N. J.
" H. S., Surv., Hydl. E., Supt. W. W., Burlington, N. J.
" J. S., Surv., Mickleton, N. J.
" N. W., Surv., Mt. Holly, N. J.
Hake, R. V., U. S. Dep'ty. Surv., Salt Lake, U.
Hall, D. C., U.S. Dep'ty. Surv., 610 Commercial st., San Francisco.
" J. D., U. S. Dep'ty. Surv., Santa Fe, N.M.
" R. M., Co. S., Galveston, Tex.
Halladay, W. P., Surv., 43 Grove st., St. Paul, Minn.
Halley, T. H., Co. U., Fulton, Mo.
Hamlin, F., Co. S., Yuba City, Cal.
Hamilton, G. F., U.S. Dep'ty. Surv., St. Paul, Minn.
" Jno., Co. S., Goodland, Ind.
Hammond, R. P., Surv., 402 Montgomery st., San. Francisco.
" R. P., Jr., U. S. Dep'ty. Surv., Salinas, Cal.

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Hanna, H. S., Surv., Great Bend, Pa.
Hardin, W., Co. S., Ashland, Neb.
Harding, R. D., U.S.Dep'ty.Surv., Sante Fe, N.M.
Hardy, W. H., U.S.Dep'ty.Surv., Sante Fe, N.M.
Harker, G. H., Surv., Wrightown, N. J.
" G. W., Surv., Mt. Holly, N. J.
Harris, G. P., Co. S., Clinton, La.
" J. S., U. S. Surv. Gen., Helena, Mont.
" T. W., C.E. & Surv., 19 Exchange pl., Boston.
Hartley, M. A., Co. S., Loup City, Neb.
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Hawkins, C. R., U. S. Dep'ty. Surv., Deadwood, Dak.
Hayes, C. M., Co. S., Lewisburgh, Pa.
" L., U. S. Dep'ty. Surv., Denver, Col.
Hays, R. R., U. S. Dep'ty. Surv., Portland, Or.
Heald, P. C., Co. S., Midland, Mich.
Heamentreil, H., U. S. Dep'ty. Surv., Red Cliff, Col.
Hearrell, L. B., Co. S., Neosho, Mo.
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Hendel, C. W., U. S. Dep'ty. Surv., 610 Commercial st., San Francisco.
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Hibben, J. H., Co. S., Emporia, Kan.
Hicks, W. W., C.E., U. S. Surv. Gen., Tallahassee, Fla.
Higbee, E. F., Drft's., U.S. Surv. Gen's. Off., Huron, Dak.
Higgings, I. S., Co. S., Collins' Mill, Va.
Hilands, W., Co S., Franklin, Pa.
Hill, J. W., Surv., 207 N. 9th st., St. Louis, Mo.
Hillbush, J. R., Surv., Mahanoy, Pa.
Hills, V. G., U.S. Dep'ty. Surv., Pueblo, Col.
Himrod, S. A., U. S. Dep'ty. Surv., Santa Fe, N. M.
Hinse, W., Surv., Salem, N. J.
Hitchner, R. W., C.E. & Surv., Elmer, N. J.
Hoag, N., Co. S., Stevens Point, Wis.
Holden, D. F., Surv., Oviatt, Mich.
Holland, T.S., U.S. Dep'ty. Surv., Santa Fe, N.M.
Holly, G., Co. S., McConnellsburgh, Pa.
Holmes, W., U.S. Dep'ty. Surv., Silver Cliff, Col.
Holt, J. L., Dep'ty. Co. S., Bolivar, Mo.
Hoodley, J. H., U.S. Dep'ty. Surv., Bisbee, Ariz.
Hoover, O. H., Co. S., New Philadelphia, O.
Hopkins, A. L., Surv., Harrisonburgh, La.
Hopkins, C. F., U. S. Dep'ty. Surv., Jacksonville, Fla.
Howard, C. J., U.S. Dep'ty. Surv., Portland, Or.
" J. S., U. S. Dep'ty. Surv., Portland, Or.
" S. N., Surv., 96 Wash. st., Chicago.
Howe, F. D., U. S. Dep'ty. Surv., Alma, Col.
Howell, A., Surv., Vincentown, N. J.
Hoyd, A. B., Co. S., Culman, Ala.
Huffer, F. A., U. S. Dep'ty. Surv., Portland, Or.
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Hull, G. W., U.S. Dep'ty. Surv., Leadville, Col.
Humes, T. R., Co. S., Gravois Mills, Mo.
Humphreys, W. P., City S., San Francisco, Cal.
Hunter, S., Co. S., Montrose, Va.
Hurff, F., Surv. Swedesboro, N. J.
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Irick, H. J., Surv., Vincentown, N. J.
Irms, F. C., Co. S., Carlisle, Pa.
Irwin, J. M., U.S. Dep'ty. Surv., Santa Fe, N.M.
Itson, F., Co. S., Clayton, Ala.

J.

Jackson, J. E., U. S. Dep'ty. Surv., 610 Commercial s., San Francisco.
Jacques, A. G., U. S. Surv. Gen., New Orleans.
Jalet, A., Jr., Surv., Homna, La.
Jennings, T., Surv., Tuckerton, N. J.
Jennison, H. H., Surv., Eagle, Mich.
Jerome, H., Surv., Saginaw City, Mich.
Jessen, A., U. S. Dep'ty. Surv., Salt Lake, U.
Jewett, D. J., M.A., U. S. Dep'ty Surv., Sante Fe, N. M.
Johnson, D. R., Co. S., Perrysville, W. Va.
" F.F., U.S.Dep'ty. Surv., Estabrook, Col.
" H. H., U. S. Dep'ty. Surv., Boise City, Ido.
Johnson, I. N., U. S. Dep'ty, Surv., Santa Fe, N. M.
" Jos. C. E., District Surv., Phila.
" J. C., Co.S., Sedalia, Mo.
" R. A., U.S. Surv. Gen., Tucson, Ariz.
R. S., C.E., '74 (D.C.) C.E. & Surv., Tower, Ia.
Jones, E. C., Co.S., Jackson, O.
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" W. B., Co.S., Van Wert, O.
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" G. A., U. S. Dep'ty. Surv., Butte City, Mont.
Kessler, T., Co.S., Allentown, Pa.
Kilpatrick, G. A., Co.S., Seward, Neb.
King, J. L., Co.S., Laporte, Pa.
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Kingsley, J. C., C.E., M.E.,'76 (R.P.I.) U. S. Dep'ty. Surv., Silverton, Col.
Kline, G. A., U.S. Dep'ty. Surv., Big Stone City, Dak.
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Knight, A. B., U.S. Dep'ty. Surv., Virginia City, Mont.
Knisely, G., U. S. Dep'ty. Surv., Portland, Or.
Koeber, E.W., U.S. Dep'ty. Surv.,Salt Lake, U.
Koppe, A., U.S., Dep'ty. Surv., Rosita, Col.
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Krause, H., Co.S., Lexington, Mo.
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Kuhn, J. W., Surv., Franklin Co., Pa.
Kundzton, C. T., Co.S., Watertown, Dak.

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" Wm., Surv., Ocean City, N. J.
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Lawton, H. J., Co.S., Cascade, Wash. T.
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" T. H., Co.S., Brewer, Mo.
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" J. C., Co.S., Pinnacle Springs, Ark.
" R. K., Co.S., Janesville, Wis.
Lempke, P. L., Co.S., Sainte Genevieve, Mo.
Lenz, E., Co.S., Ridgway, Pa.
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Lewis, E. J., Co.S., Nelson, Neb.
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" J. W., Co.S., Barnesville, Minn.
Lindsey, J. P., U. S. Dep'ty Surv., Santa Fe, N. M.
Lippincott, Clayton, Surv., Moorestown, N. J.
" Jas., Surv., Mt. Holly, N. J.
Litchfield, A. B., U. S. Dep'ty Surv., Salt Lake.
Lloyd, G. W., U.S. Dep'ty Surv., Aspen, Col.
Logan, C. N., Co.S., Nevada, Mo.
Lohr, G. C., Co.S., Estelline, Dak.
Lomig, F. C., U. S. Dep'ty Surv., Rico, Col.
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Love, T., Surv., Avery, Mich.
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Lowden, H. L., U. S. Dep'ty Surv., Weaversville, Cal.
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" E. G., U. S. Depty. Surv., Leadville, Col.
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" J. W., Co.S., Yankeetown, Wis.
" R. L. C., Co.S., Clarksburgh, Mo.
" W. F., Co.S., Greensburgh, Pa.
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" D., Co.S., Newport, Pa.
" F. A., U. S. Depty. Surv., Salt Lake, U.
" M. O., Co.S., Hancock, Mo.
" S., Co.S., Carrollton, Mo.
" W. P., Surv., Lock Haven, Pa.
Monroe, F. P., U.S., Depty. Surv., Barlow, Col.
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Moyer, F., Co.S., New Ringgold, Pa.
" L. R., Co.S., Montevideo, Minn.
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Muse, W. G., Surv., W. Newton, Pa.
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Norton, G.W., U. S. Dep'ty Surv.,
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O'Conner, J., U. S. Dep'ty Surv., Buena Vista, Col.
O,Hara, J., Co.S., Manitowoc, Wis.
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Organ, J.E., Co.S., Salem, Mo.
Orr, W.J., Co.S., Charlotte, N.C.
Orwig, H.J., Co S., Big Rapids, Mich.
Osborn, E., Co.S., Billings, Mo.
Osgood, O., Surv., 6 Stevens Bl'k., Lowell,Mass.
" O.F., Surv., 27 Central st., Lowell,Mass.
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Owen, W.O., U. S. Dep'ty. Surv., Cheyenne, W.T.

P.

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Paige, E., Co. S. & C.E., Indiana, Pa.
Palmer, E.D., U.S. Dep'ty. Surv. & City E., Yankton, Dak.
" Francello, A., Co.S., McBride's, Mich.
" Jno. O., Surv., St. Johns, Mich.
" O.A., U. S. Dep'ty. Surv., Salt Lake, U.
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" E.A.D., Co.S., Nelson, Neb.
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" T.A., Co.S., Spring Hill, Kan.
Parish, F., Surv., Hokomo, Col.
Parry, C., Surv., Cinnaminson, N.J.
" Howard, Surv., Cinnaminson, N.J.
" Wm., Surv., Cinnaminson, N.J.
Parsons, J.P., U.S. Dep'ty. Surv.,Frankfort, D.T.
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" W., Co.S., Clayton, Wis.
Price, H.F., Co.S., Washington, D.C.
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" T.W., Co.S., Fairville, Mo.
Priest, F.M., Co.S., Bryan, O.
Puller, Clarence, U.S. Surv. Gen., Sante Fe, N.M.
Pullium, F.S., C.E. & Surv., Carrollton, Mo.
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" S., U. S. Depty. Surv., Rapid City, Dak.
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" Wm., Co. S., Grand Rapids, Mich.
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Shafer, G. S., Co. S., Mountain Home, Pa.
Shaw, E. M., Co. S., Cuba Station, Ala.
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" J., U. S. Depty Surv., Santa Fe, N. M.
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Sherman, J. E., Surv., Marquette, Mich.
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Shute, J. D., Surv., Barnsboro, N. J.
" Jno. J., Surv., Bridgeton, N. J.
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Slater, N. M., Surv., Butler, Pa.
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" J. F., U. S. Depty. Surv., Salt Lake, U.
" O. L., Co. S., Waseca, Minn.
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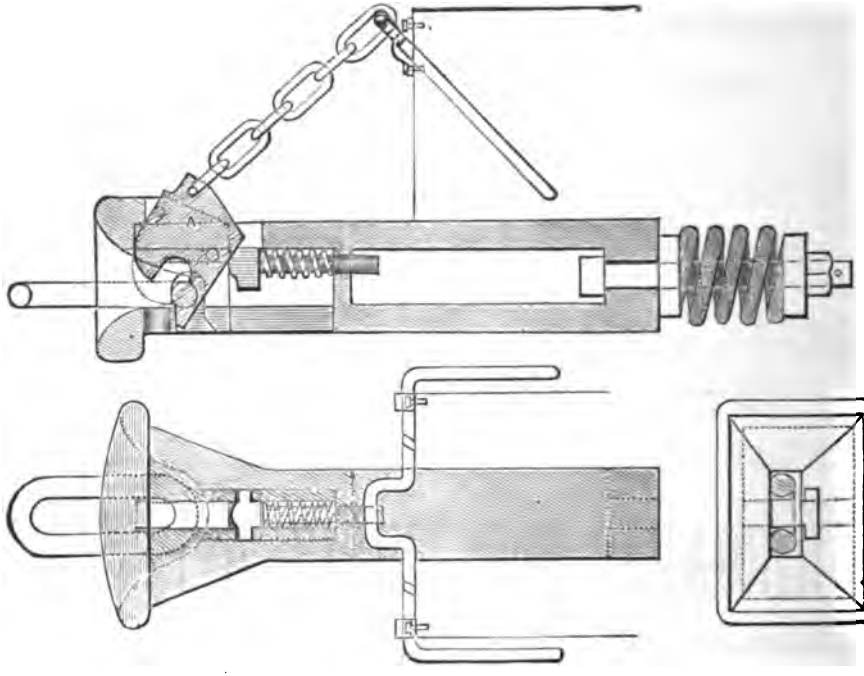

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ALTOONA COAL & IRON—v. (Va. R. R., 8½ miles.) G.3.

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Gen. Bag. Agt.—W. N. Johnson, "
Foreman Loco. Reprs.—Wm. Kelly, "
Master Car Bldr.—John Greenhoe, "

ARNOT & PINE CREEK—Arnot to Morris, Pa. 15.3 miles. Leased to Tioga R.R. Co.
Pres.—L. H. Shattuck, Blossburg, Pa.
Sec. & Treas.—D. S. Drake, Elmira, N. Y.

AROOSTOOK RIVER—N. B. Boundary line to Presque Isle, Me., 30 miles. Leased to N.B.Ry. Co.
Pres.—L. R. King, Caribou, Me.

ASHBURNHAM.—3 miles. Std. G.
Pres.—Geo. C. Winchester, Ashburnham, Mass.
Supt. & Pur. Agt.—C. M. Proctor, " "

ASHEVILLE & SPARTANBURG—50 miles. 5 ft. G.
Pres.—R. Y. McAden, Charlotte, N. C.
Vice Pres.—Wm. H. Inman, New York; A. L. Rives, Richmond, Va.
Supt. & Sec.—Jas. Anderson, Spartanburg, S. C.
Treas. & Aud.—A. L. White, "

ASHLAND COAL & IRON—Ashland to Straight Creek Junc. (E. L. & B. S. R. R.) 22 miles. Std. G.
Pres.—John Means, Ashland, Ky.
Vice Pres.—Jno. G. Peebles, Portsmouth, O.
Gen. Mgr. & Gen. Supt.—Douglas Putnam, Jr., Ashland, Ky.
Asst. Gen. Supt.—Frank Coles, "
Ch. Eng.—M. T. Hilton, "
Sec. & Treas., Gen. Ticket, Bag., Freight & Pur. Agt.—Robt. Peebles, Ashland, Ky.
Aud.—Chas. Krotzenbarger. "
Fuel Agt.—C. D. McKenzie, "
Mast. Mech. & Mast. Car Bldr.—E. M. Roberts, Ashland, Ky.
Car Acct.—L. R. Putnam, "
Foreman Loco. Reprs.—Wm. Wonn, "
Foreman of Car Reprs.—O. F. Brainard, "
Road Master—Jos. P. Mayo "

ASHLEY RIVER—4 miles. 5 ft. G.
Pres.—A. F. Ravenel, Charleston, S. C.
Sec. & Treas.—J. F. O'Mara, "

ASHTABULA & PITTSBURGH—Ashtabula to Youngstown, O., 62.6 miles. Std. G. Operated by Penna. Co.
Pres.—Jno. N. Hutchinson, Phila., Pa.
Sec. & Treas.—Frank Semple, Pittsburgh, Pa.
(For other Officers, see Penna. Co.), Principal office, Ashtabula, O.

ASHUELOT—South Vernon, Vt., to Keene, N. H., 24 miles. Std. G. Leased to Conn. Riv. R. R.
Pres.—A. B. Harris, Springfield, Mass.
Treas.—E. F. Lane, "

ATCHISON, COLORADO & PACIFIC—Waterville to Warwick and other Kansas towns, 254.4 miles. Std. G. Leased to Union Pacific R. R. (q. v.)
Pres.—S. Dillon, New York.

ATCHISON, JEWELL CO. & WESTERN—Jamestown to Burr Oak, Ks., 33.87 miles. Std. G. Leased to Union Pacific R. R. (q. v.)

ATCHISON, TOPEKA & SANTA FE—Miles in operation (including leased lines), over 2500. Std. G.
Pres.—Wm. B. Strong, Boston.
Vice Pres. & Gen. Mgr.—A. E. Touzalin, Topeka, Kas.
Compt.—John P. Whitehead, Boston.
Asst. Gen. Mgr.—Geo. B. Harris, Topeka, Kas.
Gen. Supt. & Chief Eng.—A. A. Robinson, Topeka.
Prin. Asst. Eng.—Geo. B. Lake, "
Sec.—Geo. L. Goodwin, Boston.
Treas.—E. Wilder, Topeka.
Aud.—H. C. Clements, "
Traf. Man.—J. F. Goddard, "
Gen. Pass. & Ticket Agt.—W. F. White, "
Gen. Bag. Agt.—P. Walsh, "
Gen. Freight Agt.—H. C. Barlow, "
Pur. Agent.—Geo. Hargreaves, Topeka.
Mast. Car Bldr.—Henry Hull, "
Div. Supts.—D. J. Chase, Topeka; H. R. Nickerson, Nickerson, Kan.; D. H. Rhodes, La Junta, Col.; Geo. L. Sands, Las Vegas, N.M.
Asst. Div. Supt.—C. M. Rathburn, Topeka.
Road Masters—D. Coleman, Topeka; P. Peters, Topeka; Geo. Weight, Topeka; A. Harley, Topeka; W. E. Copwell, Nickerson, Kan.; G. J. Lockie, Florence, Kan.; S. Harpster, Dodge, Kas.; E. Treadwell, Trinidad, Col.; Morris Law, San Marcial, N. M.
Supt. Fuel & Mines.—W. W. Allen, "
Supt. Mot. Pr. & Mach.—Geo. Hackney, "
Div. Mast. Mechs.—J. M. Smith, Kansas City, Mo.; J. Togan, Atchison, Kan.; Alf. Taylor, Emporia, Kan; W. W. Johnston, Nickerson, Kan.; A. C. Stiles, La Junta, Col.; D. H. Dotterer, Raton, N. M.; F. B. Woodruff, Las Vegas, N. M.; J. H. Holman, Wallace, N. M.; E. Hackett, San Marcial, N. M., and Deming, N. M.; G. A. Hancock, El Paso, Tex.

ATLANTA & CHARLOTTE AIR LINE—269 miles. G. 5 ft.
Pres.—W. R. Sibley, 48 Wall st., New York City.
Treas.—Geo. Sherman, "
Sec.—Wm. N. Wilmer, "
Leased to the Richmond & Danville R.R. (q. v.)

ATLANTA & WEST POINT—G. 5. Miles operated, 87. No. of locomotives, 18; passenger cars, 20; freight and miscellaneous cars, 226.
Pres.—L. P. Grant, Atlanta, Ga.
Gen. Mgr.—Cecil Gabbett, Montgomery, Ala.
Treas.—A. W. Hill, Atlanta, Ga
Gen. Pass., Ticket & Freight Agt.—A. J. Orme, Atlanta, Ga.
Mast. Mech.—C. D. Wall, Montgomery, Ala.
Road Master—Wm. Mims, Atlanta, Ga.

ATLANTIC & DANVILLE—Claremont, Va. to Danville. Miles operated 24. G. 3 ft.
Pres.—J. M. Bailey, Waverly, Va.
Sec. & Treas.—B. D. Tillar, Hicksford, Va.
Gen. Mgr.—E. G. Sweatt, Waverly, Va.
Chief Eng.—W. J. Rollins, Jr., "
Mas. Trans.—P. Fleetwood, "

ATLANTIC & NORTH CAROLINA—Moorehead City to Goldsboro, 95 miles. Std G.
Receiver—Jno. Gatling.
Pres.—J. D. Whitford, Newbern, N. C.
Sec. & Treas.—F. C. Roberts, "
Supt.—W. Dunn, "
Leased by Midland, N. C. R'y Co.

ATLANTIC & PACIFIC—Seneca, Mo., to the Needles, N. Mex. Completed, over 600 miles. Std. G.
Pres.—H. C. Nutt, 87 Ninth st., Boston, Mass.
V. Pres.—E. F. Winslow, New York City.
Sec. & Treas.—C. S. Tuckerman, Boston.
Land Com.—J. A. Williamson, "
Gen. Supt.—F. W. Smith, Albuquerque, N. M.

Chief Eng.—W. A Drake, Albuquerque, N. M.
Div. Eng.—C. S. Henning, Williams, A. Ty.
Gen. Tkt. & Fgt. Agt.—W. C. Dennison, Albuquerque, N. M.
Aud.—D. L. Gallup, Boston, Mass.
Purch. Agt.—A. West, Chicago, Ill.
Supt. Mot. Power—Geo. F. Chalender, Albuquerque, N. M.
Div. Mast. Mechs.—Geo. W. Jennings, Albuquerque, N. M.; H. Clothier, Coolidge, N.M., J. X. Woods, Winslow, A. Ty.; A.R. Barrett-Peach Springs, A. Ty.
Ass.Supt.—Geo.F. Chandler, Albuquerque, N.M.
" D. Hardy, Williams, A. Ty.

ATLANTIC & ST. LAWRENCE—Portland, Me., to Island Pond, Vt. 150 miles. Std. G. Leased to Grand Trunk.
Pres.—Saml. E. Spring, Portland, Me.
Treas.—Chas. E. Barrett, "
Sec.—F. R. Barrett, "

ATLANTIC, TENN. & OHIO—Charlotte to Statesville, N. C. 49.4 miles. 5 ft. G. Leased to Charlotte, Columbia & Augusta R. R.(q.v.)
Pres.—W. R. Myers, Charlotte, N. C.

ATTLEBOROUGH BRANCH—of Boston & Prov. R. R., (q. v.) 5 miles. Std. G.
Pres.—H. F. Barrows, N. Attleborough, Mass.
Treas.—H. N. Daggett, "

AUGUSTA, ELBERTON & CHICAGO—Under contract. 5 ft. G.
Pres.—James P. Verdery, Augusta, Ga.
V. Pres.—Henry J. Lang, Lincolnton, Ga.
Chief Eng.—C. S. Dwight, Winnsboro, S. C.
Ass. Chief Eng.—D. M. Andrews, Washington, Ga.
Sec. & Treas.—Henry P. Moore, Augusta, Ga.

AUGUSTA & KNOXVILLE—Augusta, Ga., to Greenwood, S.C. 68 miles. 5 ft.G. Leased to the Port Royal & Augusta (q. v.).
Pres. & Gen. Mgr.—E. F. Verdery, Augusta, Ga.
Treas.—J. W. Clark, "

AUGUSTA & SAVANNAH—Millen to Augusta. 53 miles. 5 ft. G. Leased by Central R. R. of Ga. (q. v.)
Pres.—W. S. Lawton, Augusta, Ga.

AUSTIN & NORTHWESTERN—Austin to Burnett, Tex. 60 miles. 3 ft. G.
Gen. Mgr. and Receiver—J. A. Rhomberg, Austin, Tex.
Supt.—A. L. Rhomberg, "
Gen.Tkt. & Fgt.Agt.—C. A. Gardner, "
Mast. Mech.—L. W. Worster, "
Road Master—H. C. Smith, "

AVON, GENNESEO & MOUNT MORRIS—Branch of N. Y., Lake Erie & West. (q. v.) to Groveland, N. Y. 19 miles. Std. G.
Pres.—M. F. Reynolds, Rochester, N. Y.

B.

BACHMAN VALLEY R. R.—Valley Junc., Pa., to Ebbvale, Md. Operated by Hanover Junc., Hanover & Gettysburg R. R.
Pres. Md. Div.—Jerome L. Boyer, Columbus, Pa.
Pres. Pa. Div.—A.W. Eichelberger, Hanover, Pa.
Sec. & Treas.—C. W. Forney, "
Supt.—H. D. Scott, "
Fgt. Agt.—Jos. Leib, "
Road Master—Danl. Krout, "

BALD EAGLE VALLEY—Vail Sta. to Lockhaven, Pa., and branches. 80.37 miles. Leased to Pa. R. R. (q. v.)
Pres.—L. A. Mackey, Lockhaven, Pa.
Treas.—Taber Ashton, Philadelphia, Pa.

BALTIMORE & CUMBERLAND VALLEY—Edgdmont, Md., to Shippensburg, Pa. 31 miles. Std. G. Leased to the West'n. Maryland R. R. Co., (q. v.)
Pres. Md. Div.—J. M. Hood, Balto, Md.
Sec. & Treas.—Jno. S. Harden, "
Pres. Mid. Div.—I. N. Snively.
Treas. " Jos. Price, Waynesboro, Pa.
Pres. Pa. Div.—David Wills, Gettysburg, Pa.
Treas. " D. J. Foley, Balto, Md.

BALTIMORE & DELAWARE BAY—Pierson's Cove, Del., to Chestertown, Md., and branch. 50 miles. Std. G.
Pres.—John F. Bingham, New York.
Mgr.—Fred. Gerker, Chestertown, Md.
Sec. & Treas.—H. Hosford, "
Gen.Fgt.& Tkt.Agt.—C.W.Hurley, "
Chief Eng.—L. D. Bruyn, "

BALTIMORE & HANOVER—Black Rock, Pa., to Emory Grove, Md. 20 miles. Std. G. Operated by Hanover Junc., H. & Gettysburg R. R. (q. v.)
Pres.—A. W. Eichelberger, Hanover, Pa.
Gen. Supt.—H. D. Scott, "
Road Master—A. R. McClary, "

BALTIMORE & OHIO—Baltimore to Wheeling, W. Va., and numerous branches, 1,646 miles. Std. G.
Pres.—Robert Garrett, Baltimore, Md.

Vice Pres.—Samuel Spencer, Baltimore, Md.
Second Vice Pres.—Thos. M. King, "
Third Vice Pres.—Orland Smith, "
Gen. Mgr.—Bradford Dunham, "
First Asst. to Pres—John W. Davis, "
Asst. to Pr. .—W. T. Barnard, "
Asst. to Pres.—A. Anderson, "
Con. Eng.—J. L. Randolph, "
Supt. of Motive Power—J. W. Davis, "
Sec and Treas.—W. H. Ijams, "
Aud.—Wm. T. Thelin, "
Asst. Aud.—Wm. M. Buchanan, "
Gen. Freight Agt.—F. Harriott, "
Asst. Gen. Freight Agt.—C. E. Ways, "
Asst. Gen. Freight Agt.—C. S. Wight, Columbus, O.
Gen. Pass. Agt.—C. K. Lord, Baltimore, Md.
Asst. G. Pass. Agt.—J. G. Pangborn, "
Gen. Ticket Agt.—L. M. Cole, "
Pur. Agt.—N. S. Hill, "
Gen Supt. Main Line and Branches.—W. M. Clements, Baltimore, Md.
Road Master, E. Ohio Riv.—David Lee.
Gen. Supt. Trans., Ohio Div.—G. J. Foreacre, Newark, O.
Gen. Supt. Pitts. Div.—J. T. Harahan, Pittsburg. Pa.
Road Master, Pitts. Div.—W. T Manning, Connellsville, Pa.
Gen. Mgr. Telegraph—D. H. Bates, Baltimore, Md.
Master of Mach.—A. J. Cromwell.
Asst. Master of Mach.—W. H. Harrison, Newark, O.
Asst. Master of Mach.—J. E. Sampsel, Connellsville, Pa.
Gen. Mgr. Exp.—W. H. Trego, Baltimore, Md.
Supt. Exp.—W. H. Snyder, Columbus, O.
Supt. Telegraph—Chas. Selden, Baltimore, Md.
Supt. Sleeping Cars.—J. S. Merrill
Gen. Bag. Agt.—J. V. Smith.
Gen. Eastern Pass. Agt.—C. P. Craig, 315 Broadway, N. Y.
Gen. Northwestern Pass. Agt.—T H. Dearborn, 83 Clark st., Chicago, Ill.
Gen. Western Pass. Agt.—Lyman McCarty, Kansas City, Mo.
Div. Pass. Agt.—B. F. Bond, Baltimore, Md.
Div. Pass. Agt.—W. E. Reppert, Columbus, O.
Div. Pass. Agt.—E. D. Smith, Pittsburg, Pa.
Div. Freight Agt—T. H. Noonan, Tiffin, O.
Div. Freight Agt.—H. S. Burgesser, Pittsburgh, Pa.
Acting Gen. Agt. (Freight)—A. P. Bigelow, Chicago, Ill.

BALTIMORE & OHIO & CHICAGO—Chicago Junction, O., to Chicago, Ill., 271 miles. Std. G. Owned by B. & O. R. R.
Pres. and Gen. Mgr.—G. J. Foreacre, Newark, O.
Treas. and Sec.—J H. Sutor, Zanesville, O.
Eng. of Real Estate—W. N. Bolling.

BALTIMORE & PHILADELPHIA—Philadelphia to Maryland State line, 36.55 miles.
Pres.—J. B. Washington, Pittsburgh, Pa.
Vice Pres.—Robert Garrett, Baltimore, Md.
Sec.—J. C. Farra, Wilmington, Del.
Treas.—W. H. Ijams, Baltimore, Md.
Chief Eng.—H. T. Douglass, "
Supt.—David Connell, Wilmington, Del.
Gen. Mgr—S. Spencer. Baltimore, Md.
Asst. Gen. Freight Agt.—C. E. Ways, "
Aud.—W. T. Thelin "
Prin. Office of Add, Wilmington, De.
Tran. Office, Baltimore, Md.

BALTIMORE & POTOMAC, AND ALEXANDRIA & FREDERICKSBURG—Baltimore to Fredericksburg, 112 miles. G., 4-9. Prin. Office and Add., Calvert Station, Baltimore, Md.
Pres.—Oden Bowen, Baltimore.
Vice Pres.—Frank Thompson, Phila.
Gen. Mgr.—Charles E. Pugh, "
Gen. Supt.—H. F. Kenney, "
Asst. Supt.—H. H Carter, Wilmington.
Chief Eng.—Wm. H. Brown, Phila.
Sec. and Aud.—John Crowe, Balto.
Treas.—John S. Lieb, "
Gen. Pass. Agt.—James R. Wood, Phila.
Div. Ticket Agt.—E. S. Young, Balto.
Gen. Freight Agt.—John S. Wilson, Phila.
Div. Freight Agt.—W. H. Joyce, Balto.
Pur. Agt.—A. W. Sumner, "
Gen. Agt. at Baltimore—Geo. C. Wilkins.
Supt. Motive Power—J. M. Wallis, Phila.
Asst. Eng.—A. C. Hippey, Wil.
Supervs.—R. H. Nicholas, Bowie, Md; R. M. Goundie, Washington, D. C.

BANGOR & KATAHDIN IRON WORKS RAILWAY—G. 4-8½. Milo Junction to Katahdin Iron Works, 18.9 miles.
Pres.—Chas. V. Lord, Bangor, Me.
Treas. and Supt.—F. W. Cram, "
Prin. Office and Add., Bangor, Me.

BANGOR & PISCATAQUIS RAILROAD—Oldtown, Me., to Blanchard, Me., 62.80 miles. G. 4-8½.
Pres.—Moses Giddings, Bangor, Me.
Gen. Supt. Pass., Pur. Agt—Arthur Brown, Bangor, Me.
Treas.—H. W Blood, "
Master Mech.—C. S. Nason, "
Master Car Builder—J. W. Comins, Oldtown, Me.
Road Master—John Farquhar, "
Prin. Office and Add, Bangor, Me.

BANGOR & PORTLAND—Portland, Pa., to Nazareth, Pa., 24 miles. G. 4-8½
Pres. and Gen. Mgr.—C. Miller, Blairstown, N. J.
Gen. Supt.—John D. Vail, "
Chief Eng—E. G. Wise, Belvidere, N. J.
Sec.—Geo. W. Mackey, Bangor, Pa.
Treas.—John J. Miller, Portland, Pa.
Traf. Mgr., Gen. Pass., Ticket, and Bag. and Freight Agt.—Chas. N. Miller, Bangor, Pa.
Pur. & Fuel Agt.—C. Miller, "
Mast. of Mach.—John S. Hough, Nazareth, Pa.
Road Master.—Michael Ducy, "
Princ. office and address, Bangor, Pa

BARCLAY COAL RAILROAD—G. 4-8½. Barclay, Pa., to Towando, Pa. Miles, 16.33.
Pres.—Samuel Hines, Scranton, Pa.
Gen. Supt. & Ch. Eng.—F. F. Lyon, Barclay, Pa.
Sec.—A. R. McDonough, 21 Cortlandt st., N. Y.
Treas.—B. W. Spencer, " "
Aud.—S. Little, " "
Gen. Ticket Agt.—John W. Abbott, "
Pur. Agent.—John A. Herdenbergh, "
Mast. Mech.—Daniel McCarthy, Foot of Plane, Pa.
Road Master.—H. H. Bentley, Towando, Pa.
Prin. office and address, No. 154 S. Fourth st., Phila.

BATESVILLE & BRINKLEY RAILROAD G. 3ft. Brikley, Ark., to Colona, Ark., 32 miles.
Pres.—Wm. Black, Brinkley, Ark.
Sec., Treas. and Gen. Mgr.—W. J. Thompson, Little Rock, Ark.
Aud.—R. W. Martin, "
Gen. Pass., Ticket, Freight and Pur. Agt.—L. Salinger, Brinkley, Ark.
Chief Eng.—D. W. Durrow, "
Mast. of Mach.—John White, "
Master Mech.—T. S Diffey, "
Road Master—Joe Miller, "
Prin. office and address, Washington, Ark.

BATH & HAMMONDSPORT.—Bath, N.Y., to Hammondsport, N. Y., 9.80 Miles, G. 3.
Pres.—Geo. W. Nicholls, Hammondsport, N.Y.
Vice Pres.—Jonathan Bolie, Bath, N.Y.
Less. and Gen. Mgr.—Allan Wood, Hammondsport, N.Y.
Gen. Supt., Freight Agt.—W. H. Hall, Hammondsport, N.Y.
Sec.—J. W. Davis, "
Treas.—H. H. Book, Bath, N.Y.
Gen. Ticket Agt.—Frank Wood, Hammondsport, N.Y.
Div. Mast. Mech.—S. S. Reynolds, Hammondsport, "
Road Master.—John Fogarty,
Prin. office and address, " "

BAY OF QUINTE RAILWAY & NAVIGATION CO.—Deseronto Junc. to Deseronto, Ont., Miles, 350. G. 4-8½.
Pres.—H. B. Rathbun, Deseronto, Ont.
Vice Pres.—E. W. Rathbun, "
Gen. Mgr.—R. C. Carter, "
Chief Eng.—W. J. Butler, "
Sec.—W. R. Aylsworth, "
Treas.—F. S. Bathbun, "
Aud.—G. A. Browne, "
Gen. Pass. Agt.—F. W. Powell, "
Gen. Freight Agt.—C. A. Millener, "
Mast. Mech.—James A. Davis, "
Road Master.—D. Wagner, "
Prin. office and address, Deseronto, Ont.

BEACH CREEK AND SOUTHWESTERN R.R.—Jersey Shore, Pa., to Ansonville Pa., 103 miles. Std. G.
Pres.—William A. Wallace, Clearfield, Pa.
Vice Pres. and Treas.—Cornelius Vanderbilt, New York.
Sec.—William H. Brown, Lock Haven, Pa.
Gen. Supt.—A. G. Palmer, Jersey Shore, Pa.
Chief Eng.—W. S. Nearing, "
Trans. Agt.—Allyn Cox, New York City.
Prin. office and address, Jersey Shore, Pa.

BEDFORD & BLOOMFIELD.—Bedford, Ind., to Switz City, Ind., 41.36 miles. G. 3.
Pres.—John Thomas, Indianapolis, Ind.
Vice Pres. and Treas.—W. C. Windstanley, Bedford, Ind.
Gen. Supt. and Pur. Agt.—J. W. Kennedy, Bedford, Ind.
Sec.—S. W. Morgan, Indianapolis, Ind.
Gen. Ticket and Freight Agt.—E. J. Robinson, Bedford, Ind.
Mast. of Mach.—R. Vandorn, "
Prin. office and address, Bedford, Ind.

BELLAIRE, ZANESVILLE & CINCINNATI—Bellaire, O., to Woodsfield, O., 42 miles. G. 3.
Pres. and Gen. Mgr.—S. L. Mooney, Woodsfield, O
Vice Pres.—Col. M. Churchill, Zanesville, O.
Asst. Gen. Mgr.—S. J. Cochran, Bellaire, O.
Chief Eng.—Edward Turner, Zanesville, O.
Sec. and Aud.—M. Hoefflen, Woodsfield, O.
Treas.—Wm. C. Mooney, "
Master Mech.—John Haney, Bellaire, O.
Road Master—J. K. Miller, Woodsfield, O.
Tran. Office, Farmers' Loan and Trust Co., N.Y.

BELL'S GAP—Bell's Mills, Pa., to Irvona, Pa., 25.4 miles. G. 4-9.
Pres.—Chas. F. Berwind, 216 S. Third st., Pa.
Gen. Supt., Pur. Agt.—R. G. Ford, Bellwood, Pa.
Chief Eng.—F. L. Faries, "
Sec.—S. T. Billmeyer, 209 S. Third st., Pa.
Treas.—J. G. Cassatt, 305 Walnut st., Pa.

BELT OF CHICAGO—C. M. & St. P. Ry. to South Chicago, 24.68 miles. Std. G.
Pres.—S. R. Callaway, Chicago, Ill.
Treas.—G. W. Stokes, "
Sec. and Aud.—A. S. Dunham. "
Gen. Mgr.—Jas. Walsh, "
Master Mech.—H. C. Washburn, "
Chief Eng.—Isham Randolph, "

BELT—Around Indianapolis, 12.1 miles. Std. G.
Pres.—Wm. R. McKeen, Indianapolis, Ind.
Sec. and Treas.—A. D. Lynch. "
Supt. and Aud.—W. P. Ijams.

BELVIDERE DELAWARE—Trenton to Manunka Chunk, N. J. Miles 67.49.
Pres.—W. Hasell Wilson.
Treas.—Hugh B. Ely, Phila., Pa.

BENNINGTON AND RUTLAND—Rutland, Vt., to Bennington, Vt., 57 miles. Std. G.
Pres.—S. B. Hall, North Bennington, Vt.

Gen. Supt. and Pur. Agt.—F. C. White, Bennington, Vt.
Sec.—Geo. W. Harman, "
Treas.—C. E. Houghton, North Bennington, Vt.
Aud.—W. G. Shaw, "
Gen. Freight Agt.—H. W. Spafford, North Bennington, Vt.
Master Mech.—Geo. W. Blanchard, Rutland, Vt.
Div. Master Mech.—Chas. S. Clapp, Bennington, Vt.
Road Master.—A. G. Coomer, North Bennington, Vt.
Princ. Office.— "

BERKSHIRE—See Housatonic R. R.

BERLIN—Berlin Station, Pa., to Garrett, Pa., 10.2 miles. Std. G.
Pres.—J. B. Washington, Pittsburgh, Pa.
Sec. and Treas.—W. McCullogh, Greensburg, Pa.
Gen. Supt.—T. M. King, Pittsburgh, Pa.

BLADEN, COLUMBUS & FLORIDA—Abbottsburg to Newburg, N. C., 16 miles. G. 5 ft.
Pres.—John Colville, Wilmington, N. C.
Gen. Mgr., Sec. and Treas.—A. R. Campbell, Wilmington, N. C.
Gen. Supt. and Chief Eng.—W. C. Irons, Abbottsburg, N. C.
Aud. and Gen. Ticket and Pass. Agt.—John Nutt, Jr., Abbottsburg, N. C.
Gen Freight Agt.—C. B. Mallett, Wilmington, N. C.

BLUE RIDGE—See Columbia & Greenville. Anderson, S. C., to Walhalla, S. C., 32.5 miles.

BODIE & BENTON—Bodie, Cal., to Mono, Cal., 36 miles. G. 3 ft.
Pres.—Thomas Menzes, San Francisco, Cal.
Vice Pres.—A. J. Ralston, "
Gen. Supt., Chief Eng. and Purch. Agt.—Thos. Holt, Bodie, Cal.
Chief Clerk—G. F. Lyman, "
Sec. and Treas.—Wm. Willis, San Francisco.
Master Mech.—E. H. Barton, Bodie.
Master Car Builder—James Wyman, "
Road Master—C. H. Johnson, "

BOONE COUNTY & BOONVILLE—Centralia, Mo., to Columbia, Mo., 22.5 miles.
Pres.—W. E. Burr.
Sec. and Treas.—John Nickerson, St. Louis, Mo.

BOONEVILLE, ST. LOUIS & SOUTHERN—See Missouri Pacific.

BOSTON & ALBANY—Boston, Mass., to Albany, N. Y., 376.7 miles. Std. G.
Pres.—William Bliss, Boston, Mass.
Vice Pres. and Sec.—James A. Rumrill, Springfield, Mass.
Gen. Supt.—W. H. Barnes, Boston, Mass.
Asst. Gen. Supt. and Pass. Agt.—E. Gallup, Springfield, Mass.
Chief Eng. and Road Master—W. H. Russell, Springfield, Mass.
Asst. Chief Eng. and Road Master—G. R. Hardy, Boston, Mass.
Treas.—C. E. Stevens, "
Aud.—M. E. Barber, Springfield, Mass.
Gen. Ticket Agt.—J. M. Griggs, "
Gen. Bag. Agt.—Geo. A. Morton, Boston.
Gen. Freight Agt.—A. Mills, "
Supt. Motive Power and Mach.—A. B. Underhill, Springfield, Mass.
Div. Master Mechs.—Geo. Colby, Boston; W. H. Eddy, Springfield, Mass.; T. B. Purvis, E. Albany, N. Y.
Master Car Builder—F. D. Adams, Allston, Mass.
Foremen of Car Repairs—J. B. Weston, Springfield, Mass.; James E. Doran, E. Albany, N. Y.
Master Car Painters—W. Hibbard, Allston, Mass.; W. H. Stevens, Springfield, Mass.
Div. Supts.—H. B. Chesley, Boston; C. E. Grover, Springfield, Mass.; W. H. Russell, Jr., E. Albany, N. Y.

BOSTON, BARRE & GARDNER—Worcester to Winchendon, Mass., 36.53 miles. Std. G.
Pres.—Henry M. Witter, Worcester, Mass.
Supt., Traffic Mgr. and Purch. Agt.—H. H. Marshall, Worcester, Mass.
Treas.—William E. Starr, "
Aud.—F. H. Mason, "
Gen. Pass., Ticket and Bag. Agt.—W. M. Anthony, Worcester.
Master Mech. and Master Car Builder—F. I. Goodwin, Worcester, Mass.
Road Master—H. H. Healey, "

BOSTON, CONCORD & MONTREAL—Concord N. H., to Wells River, N. H., 166.56 miles. Std. G.
Pres.—J. Thomas Vose, Boston, Mass.
Vice Pres.—S. N. Bell, Manchester, N. H.
Supt.—W. A. Stowell, Plymouth, N. H.
Asst. Supt.—F. T. Lewis, "
Chief Eng.—C. O. Foss, Concord, N. H.
Asst. Chief Eng.—F. C. Merrill, "
Cashier.—W. A. Cobb, Plymouth, N. H.
Treas.—Edward D. Harlow, Boston.
Gen. Ticket Agt.—W. R. Brackett, Plymouth, N. H.
Gen. Freight Agt.—J. H. Carpenter, "
Pur. Agt.—Geo. W. Storer, Boston.
Fuel Agt.—G. E. Commings, Woodsville, N. H.
Master Mech.—Ralph Adams, Lake Village, N. H.
Asst. Mech.—G. A. Ferguson, "
Master Car Builder—L. D. Pickering, "
Division Supt.—B. H. Corning, Fabyans, N. H.
Road Master—L. D. Badger, Lake Village, N. H.

BOSTON, HOOSAC TUNNEL & WESTERN—Rotterdam Junc., N. Y., to Vt. & Mass. State Line, 86.78 miles. Std. G.
Pres.—Augustus Kountze, 120 Broadway, New York.
Vice Pres.—J. T. Kennedy, "
Gen. Mgr.—H. L. Morrill, Saratoga Springs, N. Y.

Supt. Master Mechanic and Purchasing Agent —C. H. Cory, Mechanicville, N. Y.
Chief Eng.—Jos. O. Osgood, Saratoga Springs, N. Y.
Sec.—A. T. Smith, 120 Broadway, N. Y.
Treas.—D. B. Hatch, "
Aud. and Asst. Treas.—A. Gorham, Saratoga Springs, N. Y.
Gen. Pass., Ticket and Freight Agt.—A S. Crane, Mechanicville, N. Y.
Master Car Builder—John Ellis, "
Master Car Builder—Thos. McCassy, "
Road Master—Geo. McMullen, "

BOSTON & LOWELL—Boston to Lowell, Mass., 139.92 miles. Std. G
Pres.—J. G. Abbott, Boston, Mass.
Supt.—C. S. Mellen, "
Chief Eng.—G. M. Tompson, "
Treas.—C. E. A. Bartlett, "
Gen. Pass. and Ticket Agt.—B. F. Kendrick, Boston.
Gen. Freight Agt. H. N. Turner, "
Pur. and Fuel Agt.—F. H. Nourse, "
Supt. Trans. and Mach.—J. F. Crockett, "
Foremen of Loco. Repairs—E. T. Sumner, East Cambridge, Mass.; A. J. Gifford, Lowell, Mass.
Foremen of Car Repairs—J. K. Hall, Nashua, N. H.; C. M. Coner, East Cambridge, Mass.
Master Car Painter—W. A. Harnden, "
Road Masters—N. B. Taplin, Boston,; J.T.Goss, Lowell, Mass.; William Hutchinson, Nashua, N. H.

BOSTON & MAINE—Boston, Mass., to Portland, Me., 208.34 miles. Std. G.
Pres.—Geo. C. Lord, Boston, Mass.
Gen. Supt.—James T. Furber, "
Asst. Supt.—Wm. Merritt, Jr., "
Chief Eng.—E. W. Lydston, "
Treas.—Amos Blanchard, "
Aud. H. W. B., Wightman, "
Gen. Pass. and Ticket Agt.—D. J. Flanders, Boston.
Gen. Bag. Agt.—A. Strutevant. "
Gen. Freight Agt.—W. J. C. Kenney, "
Pur. Agt.—George I. Fisher, "
Fuel Agt.—A. Perkins, "
Master Mech.—Wm. Smith, "
Master Car Builder—D. C. Richardson, Lawrence, Mass.
Road Masters—John Bailey, Lawrence, Mass.; F. A. Smith, Great Falls, N. H.

BOSTON & NEW YORK AIR LINE—New Haven to Williamatic, Ct., 50 miles. Std. G.
Pres.—Henry B. Hammond.
Treas.—Dan. B. Hatch, New York, N. Y.

BOSTON & PROVIDENCE—Boston, Mass., to Providence, R. I., 68 miles. Std. G.
Pres.—H. A. Whitney, Boston, Mass.
Gen. Supt. and Pur. Agt.—A. A. Folsom, "
Gen. Ticket Agt.—James Daily. "
Gen. Freight Agt.—W. H. Morrell, "
Master Mech.—George Richards, "
Master Car Builder—John Lightner, "
Treas.—B. B. Torrey, Boston, Mass.
Road Masters—D. L. Davis, Readville, Mass.; D. S. Hill, Dedham, Mass.; N. B. Phillips, Stoughton, Mass.; E. Merrill, Mansfield, Mass.; Isaiah Hoyt, Rumford, Mass.

BOSTON, REVERE BEACH & LYNN—East Boston, Mass., to Lynn, Mass., 8.8 miles. G. 3ft.

BOSTON, WINTHROP & SHORE—Point Shirley, Mass., to Point of Pines, 10 5 miles. G. 4.8½ and 3 ft.
Pres.—Sam. W. Hale, Boston, Mass.
Vice Pres.—John H. Buttrick, "
Gen. Mgr.—A. P. Blake, "
Sec., Treas. and Gen. Ticket and Pur. Agt. —C. A. Parks, Boston, Mass.

BRADFORD—(See Buffalo, N. Y. & Phila.)

BRADFORD, BORDELL & KINZUA—Bradford, Pa., to Simpsall, Pa., 40.54 miles. G. 3 ft.
Pres.—John J. Carter, Bradford, Pa.
Vice Pres.—R. G. Taylor, "
Gen. Mgr. & Pur. Agt.—B. C. Williams, Bradford, Pa.
Sec.—John E. Ransom, Buffalo, N. Y.
Treas.—B. W. Spenser, New York.
Aud.—A. J. McDowell, "
Gen. Pass. & Freight Agt.—John C. McKenna.
Master Mech., Master of Trans. & Road Master —John Delaney, Bradford.

BRADFORD, BORDELL & SMETHPORT—Simpson, Pa., to Smethport, Pa., 11.45 miles. G. 3 ft.
Pres.—J. J. Carter, Titusville, Pa.
Sec.—J. E. Ransom. "
Treas.—B. W. Spencer, New York, N. Y.

BRADFORD, ELDRED & CUBA—Cuba, N. Y., to Ceres, N. Y., 53.69 miles. G. 3 ft.
Pres.—R. G. Taylor, Bradford, Pa.
Vice Pres.—G. R. Blanchard, New York.
Gen. Mgr. and Pur. Agt.—B. C. Williams, Bradford, Pa.
Sec.—John E. Ransom, Buffalo, N. Y.
Treas.—B. W. Spencer, New York.
Aud.—A. J. McDowell, "
Gen. Pass. and Freight Agt.—John C. McKenna, New York.
Master Mech. and Master of Trans.—John Delaney, Bradford, Pa
Road Master.—J. F. Ross, Little Genesee, N. Y.
Prin. office, Marine National Bank, New York.

BRANTFORD, NORFOLK & PORT BURWELL—(See Grand Trunk.)

BRATTLEBORO' & WHITEHALL—Brattleboro', Vt., to South Londonderry, Vt., 35.7 miles. G. 3 ft.
Pres.—C. F. Thompson, Brattleboro', Vt.
Treas.—J. A. Butler, Jamaica, Vt.
Lessee's general offices, St. Albans, Vt.

BREAKWATER & FRANKFORD—Georgetown, Del., to Shelbyville, Md., 19.3 miles.
Pres.—N. L. McCready, New York, N. Y.
Treas.—D. H. Houston, Lewes, Del.

BRIDGETON & SAGO RIVER—Hiram Junc. (P. & O.R.R.) Me., to Bridgeton, Me., 16 miles. G. 2 ft.
Pres.—Wm. F. Perry, Bridgeton, Me.
Treas.—P. P. Burnham, "
Supt.—G. E. Mansfield, "

BRIGHT HOPE—Eppes Falls, Va., to Bermuda, Va., 32.75 miles. G. 3 ft.
Pres.—James H. Young, New York.
Vice Pres.—Franklin Stearns, Richmond, Va.
Gen. Supt. and Treas.—James R. Werth, Richmond, Va.
Chief Eng.—H. A. Whiting, "
Sec. and Aud. and Gen. Pass., Ticket and Freight Agt.—G. M. Wilson, Richmond, Va.
Pur. Agt.—P. M. Buckingham, "
Supt. Motive Power and Mach.—A. Geary, Winterpock, Va.
Master Mech.—R. F. Kredell, Chester, Va.
Road Master—W. B. Strother, "

BROOKLYN & MONTAUK—Bushwick, N. Y., to Eastport, N. Y., 67.08 miles.
Pres.—Austin Corbin.
Treas.—Henry Graves.
Sec.—Dan. Lord, New York City.

BRUNSWICK & WESTERN—Brunswick, Ga., to Albany, Ga. 171 miles. G. 5 ft.
Pres.—Fred. Wolffe, 35 William st., New York.
Gen. Mrg. and Pur. Agt.—A. A. Gaddis, Brunswick, Ga.
Chief Eng.—C. R. Wise, "
Sec.—M. Calm, 35 William st., New York.
Treas.—Abram E. Bamberger, " "
Gen. Pass., Ticket and Freight Agt.—O. S. Benson, Brunswick, Ga.
Fuel Agt.—W. O. Hall, "
Master Mech. and Car Builder.—W. R. Kline, Brunswick, Ga.
Road Masters—J. Calnan, Eastern Division, Brunswick, Ga.; A. C. Douglas, Western Division, Pearson, Ga.

BRUNSWICK & CHILLICOTHE—Brunswick, Mo., to Chillicothe, Mo.
Pres.—B. W. Lewis, St. Louis, Mo.
Vice Pres.—Geo. M. Rice, Worcester, Mass.
Treas.—E. P. Burnham, Saco, Me.
Sec.—W. B. Cornean, Brunswick, Mo.

BUCKSPORT & ELLSWORTH—G. 4-8½. Miles operated, 20.
Pres.—D. W. C. Folsom, Bucksport, Me.
Gen. Mgr.—Howard H. Lowell, "
Chief Eng.—Gus. Mooney, "
Treas.—F. H. Royal, "
Master Car Builder.—J. P. Ames, "
Div. Supt.—W. A. Heywood, "
Road Master—Daniel Costello, "

BUFFALO, BRADFORD & PITTSBURG—Carrollton, N. Y., to Gilesville, Pa., 25.97 miles.
Pres.—S. Hines.
Sec.—A. R McDonough.
Treas.—B. W. Spencer, New York City.

BUFFALO CREEK—Buffalo, N. Y., to Light house (harbor), 226 miles.

BUFFALO, NEW YORK & ERIE—Corning to Buffalo, 142 miles.
Pres.—D. N. Lockwood, Buffalo, N. Y.
Sec. and Treas.—John Clinton Gray, N. Y. City.

BUFFALO, NEW YORK & PHILA.—671.88 miles. Std. G.
Pres.—J. W. Jones, Philadelphia.
First Vice Pres.—Calvin H. Allen, Mills Building, New York.
Second Vice Pres.—Archer N. Martin, 34 Pine st., New York.
Gen. Mgr.—Oliver Watson, Buffalo, N. Y
Gen. Supt.—Geo. S. Gatchell, Buffalo.
Chief Eng.—R. D. McCreary, Oil City, Pa.
Sec.—Joseph R. Trimble, South Third st., Philadelphia.
Treas.—F. S. Buell, Buffalo.
Aud.—Wm. L. Doyle, "
Gen. Traffic Man.—E. T. Johnson, "
Gen. Pass. Agt.—W. S. Baldwin, "
Gen. Freight Agt.—G. A. Baker, "
Pur. Agt.—J. H. Poole, "
Div. Master Mechs.—Allan Vail, Buffalo; H. J. Bookhammer, Oil City, Pa.
Div. Supts.—Henry Dwyer, Buffalo Division, Buffalo; E. H. Witter, Pittsburgh Division, Oil City, Pa.; A. Van Divort, River Division, New Castle, Pa.; R. M. Patterson, Rochester Division, Rochester, N. Y.; J. W. Watson, Narrow Gauge Division, Olean, N. Y.
Road Master—Thos. Hilliard, Titusville, Pa.

BUFFALO & SOUTHWESTERN—Buffalo, N. Y., to Jamestown, N. Y., 67.47 miles.
Pres.—John F. Moulton.
Sec. and Treas.—W. S. Bissell, Buffalo, N. Y.

BURLINGTON, CEDAR RAPIDS & NORTHERN—713.5 miles.
Pres.—Judge J. Tracy, Burlington, Ia.
Gen. Supt.—C. J. Ives, Cedar Rapids, Ia.
Supt.—R. Williams, "
Asst. Supt.—John C. Fox, "
Chief Eng.—H. F. White, "
Sec.—S. S. Dorwart, "
Treas.—H. H. Hollister, New York.
Asst. Treas.—C. Stickney, Cedar Rapids.
Aud.—J. C. Brocksmit, "
Gen. Pass. and Ticket Agt.—B. F. Mills, Cedar Rapids.
Gen. Freight Agt.—J. E. Utt, "
Pur. Agt.—T. Stickney, "
Master Mech. and Master Car Builder—R. W. Bushnell, Cedar Rapids.
Foreman of Loco. Repairs—G. Y. Smith, Cedar Rapids.

Foreman of Car Repairs—Wm. Voss, Cedar Rapids.
Foreman of Car Painters—Wm. Linter, "
Road Masters—M. Sullivan, Cedar Rapids; J. Killy, Nora Junction, Ia.; P. O'Neill, Iowa Falls, Ia; P. Howe, Estherville, Ia; J. H. Sheehy, Independence, Ia.; J. Davis, Riverside, Ia.

BURLINGTON & LAMOILLE—Burlington, Vt., to Cambridge Junc., Vt., 34 miles. St'd. G.
Pres.—D. C. Linsley, Burlington, Vt.
Vice Pres.—C. M. Spaulding, "
Gen. Mgr.—G. L. Linsley, "
Sec. and Treas.—E. W. Peck, "
Gen. Pass. Ticket and Freight Agt.—H. N. Leach, Burlington, Vt.
Cash.—C. H. Clark, "
Master Mech.—F. G. Brownell, "
Road Master—J. F. Day, Colchester, Vt.

BURLINGTON & NORTHWESTERN—Mediapolis, Ia, to Washington, Ia., 38.77 miles. G. 3 ft.
Pres.—T. W. Barhydt, Burlington, Ia.
Vice Pres.—David Leonard, "
Sec. and Treas.—R. M. Green, "
Chf. Eng. and Supt.—Jonn. T. Gerry, "

BURLINGTON & WESTERN—Winfield, Ia., to Martinsburg, Ia., 47.2 miles. G. 3ft.
Pres.—T. W. Barhydt, Burlington, Ia.
Vice Pres.—J. S. Cameron, "
Sec. and Treas.—R. M. Green, "
Chief Eng. and Supt.—J. T. Gerry "

BURLINGTON & MISSOURI RIVER IN NEBRASKA—Gauge, 4-8½. Miles operated, 1,343.3.
Pres.—C. E. Perkins, Burlington, Ia.
Vice Pres.—Second, J. C. Peasley, Chicago, Ill.; Third and General Manager, T. J. Potter, Chicago, Ill.
Asst. Gen. Mrg.—George W. Holdredge, Omaha, Neb.
Gen. Supt. and Chief Eng.—T. E. Calvert, Lincoln, Neb.
Consulting Eng.—Robert J. McClure, Chicago, Ill.
Asst. Treas.—J. G. Taylor, Omaha, Neb.
Sec.—A. G. Stanwood, Boston, Mass.
Treas.—E. E. Pratt, Boston, Mass.
Aud.—C. D. Dorman, Omaha, Neb.
Gen. Pass. and Ticket Agt.—P. S. Eustis, Omaha, Neb.
Gen. Baggage Agt.—T. Marsland, Lincoln, Neb.
Gen. Freight Agt.—Thomas Miller, Omaha, Neb.
Pur. Agt.—W. Irving, Chicago
Master Mech.—D. Hawksworth, Plattsmouth, Neb.
Supply Agt.—C M. Wead, "
Master Car Painter—D. B. Smith, Plattsmouth, Neb.
Div. Supts.—D. E. Thompson, Lincoln, Neb.; J. McConniff, Lincoln, Neb.; A. Campbell, McCook, Neb.
Road Masters.—J. P. Taylor, Plattsmouth, Neb.; J. H. Dailey, Lincoln, Neb.; J. N. Leahy, Nebraska City, Neb.; J. C. Cornell, Beatrice, Neb.; Dan'l. Sullivan, White Cloud, Neb.; C. B. Rodgers, Wymore, Neb.; E. F. Highland, Red Cloud, Neb.; E. Zook, Akron, Neb.; J. R. Phelan, McCook, Neb.; C. Cain, Lincoln, Neb.

C.

CALIFORNIA NORTHERN—Marysville, Cal., to Oroville, Cal., 26.5 miles. Std. G.
Gen. Mgr. and Sec.—Andrew J. Binney, Marysville, Cal.
Master Mech.—E. S. Wright, "
Foreman Bridge and Car Repairs.—Geo. W. Neal, Marysville, Cal.
Road Master—E. P. Willard, Honcut Station, Cal.

CALIFORNIA PACIFIC—South Valejo, Cal., to Sacramento, Cal., 60.39 miles.
Pres.—R. P. Hammond.
Vice Pres.—Chas. F. Crocker.
Treas.—Timothy Hopkins.
Sec.—W. V. Huntington, San Francisco, Cal.

CALIFORNIA SOUTHERN—National City, Cal., to San Bernandino, 129.75 miles. Std. G.
Pres.—Thomas Nickerson, Boston, Mass.
Treas.—S. W. Reynolds, "
Audt.—J. H. Goodspeed, "
Supt.—J. N. Victor, National City, Cal.
Sec.—F. H. Pattee, "
Chief. Eng.—T. T. Perres, "
Master Mech.—J. M. Keith, "

CAMBRIDGE EXTENSION—Rushville, Ind., to Cambridge City, Ind., 20.85 miles.
Sec. and Treas.—G.S. McKiernan, Louisville, Ky.
Mgr.—James McCrea, Columbus, O.
Supt.—E. W. McKenna, Louisville, Ky.
Chief Eng.—M. J. Becker, Columbus, O.
Gen. Pass. and Ticket Agt.—E. A. Ford, Louisville, Ky.
Aud.—G. S. McKiernan, "
Gen. Freight Agt.—R. W. Geiger, "
Master Mech.—Wm. Swanston, Jeffersonville, Ind.

Acting Cshr.—Walter Irwin, Louisville, Ky.
Train Master—J. B. Safford, Columbus, Ind.
Eng. Maint. Way.—J. A. Weiss. "
Pur. Agt.—Wm. Mullins, Pittsburgh, Pa.

CAMBRIDGE & SEAFORD—Oak Grove, Md., to Cambridge, Md., 27.25 miles.
Pres.—Isaac Hinckley.
Sec. and Treas.—Robert Craven, Phila., Pa.

CAMDEN & ATLANTIC—Camden, N. J., to Atlantic City, N. J., 64.42 miles. Std. G.
Pres.—W. L. Elkins, 233 S. Fourth st., Phila.
Vice Pres.—Hon. W. J. Sewell, Camden, N. J.
Gen. Mgr.—Chas. E. Pugh, 233 S. Fourth st., Phila.
Supt.—W. N. Bannard, Camden, N. J.
Chief Eng.—Wm. H. Brown, 233 S. Fourth st., Phila.
Sec.—D. M. Zimmerman, Camden.
Treas.—Dr. Wm. Taylor, 233 S.Fourth st.Phila.
Aud.—T. R. Davis, " " "
Supt. Trans.—John Reilly, Broad st. Sta., Phila.
Gen. Pass. Agt.—J. R. Wood, 233 S. Fourth st., Phila.
Gen. Baggage Agt.—J. H. Reynolds, Market st. Ferry, Phila.
Gen. Freight Agt.—John S. Wilson, 233 S. Fourth st., Phila.
Pur. Agt.—Enoch Lewis, " " "
Supt. Motive Power and Machinery—H. S. Hayward, Jersey City, N. J.
Master Mech.—Rufus Hill, Camden, N. J.
Master Car Builder—Sam'l. Wills, "
Road Master—J. C. Bishop, Berlin, N. J.

CAMDEN & BURLINGTON COUNTY—Camden to Pemberton, N. J., 22.46 miles.
Pres.—John S. Irick, Vincentown, N.J.

CANADA & ATLANTIC—Ottawa, Ont., to Coteau, Que., 80 miles. Std. G.
Pres.—E. McGillivray, Ottawa, Ont.
Vice Pres.—McLeod Stewart, "
Gen. Mgr.—D. C. Linsley, "
Chief Eng.—Walter Shanly, Montreal.
Sec. and Treas.—A. W. Fleck, Ottawa, Ont.
Aud.—A. G. Peden, "
Gen. Pass. and Freight Agt.—E. C. Winnie, Ottawa, Ont.
Master Mech.—M. Donaldson, "
Foreman of Loco. Repairs—M. Wakefield, Ottawa, Ont.
Supvr—G. W. Lampman, "

CANADA SOUTHERN—433.82 miles. Std.G. (See Michigan Central.)

CANADIAN PACIFIC—3,956.8 miles. Std. G.
Pres.—Geo. Stephen, Montreal, Can.
First Vice Pres.—Duncan McIntyre, Montreal.
Second Vice Pres.—R. B. Angus, "
Gen. Mgr.—W. C. Van Horne, "
Asst. to the Gen. Man. and Pur. Agt.—Thos. G. Shaugnessy, Montreal.
Gen. Supt. West. Div.—John M. Egan, Winnipeg, Man.
Gen. Supt. East. Div.—Archer Baker, Montreal, Can.
Asst. Supt. East. Div.—C. W. Spencer, Ottawa.
Sec.—Charles Drinkwater, Montreal.
Treas.—W. Sutherland Taylor, "
Aud.—I. G. Ogden, Jr., "
Asst. Traf. Mgr.—W. Harder, Winnepeg, Man.
Asst. Gen. Pass. Agt.—G. W. Hibbard, Montreal, Can.
Gen. Freight Agt. East. Div.—G. M. Bosworth, Montreal.
Fuel Agt.—Wm. Skead, Winnipeg, Man.
Mech. Supt.—F. R. F. Brown, Montreal, Can.
Div. Master Mechs.—East. Div., W. Cross, Montreal; West. Div., W. T. Reid, Winnipeg, Man.
Gen. Loco. Foreman—R. Gilmore, Montreal.
Gen. Car Foreman—S. Oakley, "
Master Car Painter—C. Henry, "
Div. Supts.—John Niblock, Port Arthur, Ont.; Wm. Brown, Winnipeg; I. Murray, Moose Jaw, N. W. Ter.; C. Shields, Medicine Hat, N. W. Ter.
Road Masters, West. Div—J. Donovan, Winnipeg; J. S. Conners, Winnipeg; A. McClay, Rat Portage, Can.; C. J. Panser, Winnipeg; A. Johnson, Rat Portage, Can.; J. Guildford, Ignace, Can.; M. Lillis, Broadview, N. W. Ter.; Thos. Murray, Moose Jaw, N. W. Ter.; P. D. Burke, Medicine Hat, N. W. Ter.; M. Nugent, Brandon, Can.; T. Lindberg, Swift Current, Can. East. Div.—John Shanks, Lachute; I. Jelly, Carleton Place; W. Shanks, Carleton Place; R. Shanks, Mattawa; I. Cummings, North Bar, Can.

CANTON, ABERDEEN & NASHVILLE—Koscinsko, Miss., to Blanton's Gap, Miss., 32.7 miles.
Pres.—James C. Clarke, Chicago, Ill.
Treas.—R. S. Charles, New Orleans, La.

CAPE FEAR & YADKIN VALLEY—G. 4.8½. Miles operated, 75.
Pres.—Julius A. Gray, Greensboro, N. C.
Gen. Supt. and Pur. Agt.—James S. Morrison, Fayetteville, N. C.
Sec., Aud., Gen. Pass., Ticket and Freight Agt.—John M. Rose, Fayetteville, N. C.
Treas.—N. A. Sledmens, " "
Master Mech.—I. W. Clark, " "

CAPE GIRARDEAU SOUTHWESTERN—Cape Girardeau, Mo., to Idlewild, Mo., 40 miles. Std. G.
Pres. and Gen. Man.—Louis Houck, Cape Girardeau, Mo.
Vice Pres.—Wm. Brown, Brownwood, Mo.
Gen. Supt.—Wm. A. Penney, Cape Girardeau, Mo.
Sec., Aud., Gen. Pass., Ticket and Freight Agt., T. F. Wheeler, Cape Girardeau, Mo.
Treas.—Leon J. Albert, " "
Purch. Agt.—Will H. Wheeler, " "
Master Mech.—N. W. Kitchel, " "
Road Master—Richard Berry, " "

CARBONDALE & SHAWNEETOWN—Marion, Ill. to Carbondale, 17.5 miles.
Pres.—Ephriam C. Dawes.
Sec.—John E. McGettigan, Cincinnati, O.

CARILLON & GREENVILLE—Carillon, Que. to Greenville, Que., 13 miles. G. 5-6.
Pres.—G. W. Simpson, Montreal, Can.
Vice Pres.—H. W. Shepherd, Montreal.
Gen. Mgr. and Purch. Agt.—R. W. Shepherd, Jr., Montreal.
Chief Eng. and Master Mech.—John Halsey, Carillon, Can.
Sec. and Treas.—Edward Scott, Montreal.
Master Car Builder—Alfred Boialow, Carillon.
Road Master—Alex. Noveau, "

CAROLINA CENTRAL—Wilmington, N. C. to Shelby, N. C., 242 miles. Std. G.
Pres.—John M. Robinson, Baltimore, Md.
Gen. Mgr. and Purch. Agt.—John C. Winder, Raleigh, N. C.
Supt.—L. C. Jones, Wilmington, N. C.
Sec.—John H. Sharp, " "
Treas.—Jas. Anderson, " "
Gen. Pass., Ticket, Bag. and Freight Agt.—F. W. Clark, Wilmington.
Master Mech.—Jas. Maglenn, Laurinburg, N. C.
Foreman Loco. Repairs—T. L. Shaw, Laurinburg, N. C.
Master Car Builder—S. R. Etheredge, Laurinburg, N. C.
Master Car Painter—G. W. Goodwin, Laurinburg, N. C.
Road Masters—W. B. Summersett, Shoe Heel, N. C.; T. W. Whisnaut, Charlotte, N. C.

CARSON & COLORADO—299 miles. G. 3ft.
Pres. and Gen. Supt.—H. M. Yerington, Carson City, Nev.
Vice Pres.—D. L. Bliss, " "
Chief Eng.—James Oliver, " "
Asst. Gen. Supt.—R. J. Laws, Hawthorne, Nev.
Sec. and Gen. Pass., Ticket and Freight Agt.—D. A. Bender, Carson City.
Treas.—S. P. Smith, San Francisco, Cal.
Aud.—R. H. Wright, Carson City, Nev.
Pur. Agt.—Hume Yerington, " "
Master Mech.—I. N. Fording, " "
Master Car Builder—M. M. Hyde, " "
Master Car Painter—D. R. Culp, " "
Road Master—J. W. Haynie, " "

CATASAUQUA & FOGELSVILLE.—Catasauqua, Pa., to Rittenhouse Gap, Pa., 25.5 miles.
Pres.—Geo. F. Barnes, Philadelphia, Pa.
Treas. and Sec.—John Williams, Catasauqua, Pa.
Gen. Supt.—C. W. Chapman, "
Gen. Freight Agt.—R. E. Williams, "
Road Master—T. Fenstermaker, "
Master of Mach.—John Thomas "
Master of Car Repairs—C. J. Halbach, "

CATAWISSA—Tamanend to Newberry Junc., 131.5 miles.
Pres. and Treas.—M. P. Hutchinson, Phila., Pa.

CATSKILL MOUNTAIN—Catskill, N. Y., to Palenville, N. Y., 15.73 miles. G. 3 ft.
Pres.—Chas. L. Beach, Catskill, N. Y.
Vice Pres.—Isaac Pruyn, "
Gen. Supt. and Pass. Agt.—Chas. A. Beach, Catskill, N. Y.
Sec.—Sam. L. Penfield, "
Treas.—Orrin Day, "
Master Mech.—John L. Driscoll, "

CAUCA—From Buenaventura, on the Pacific Coast, to the river Cauca, 85 miles.
Grantee and Gen. Director—F. J. Cisneros, New York City.
Chief Eng.—John B. Dougherty.
Princ. Office, Buenaventura, U. S. C.

CAYUGA & SUSQUEHANNA—Susquehanna river, near Owega, to Ithaca, N. Y., 40.33 miles.
Pres.—Percy R. Pyne, N.Y.C.
Treas.—S. S. Palmer, "

CAZENOVIA, CANASTOTA & DE RUYTER—Canastota, N. Y., to De Ruyter, N. Y., 28.54 miles. Std. G.
Pres.—Austin Corbin, N. Y. C.
Vice Pres.—J. R. Maxwell, "
Gen. Mgr.—A. A. McLeod, Elmira, N. Y.
Chf. Eng.—M. Rickey, Horseheads, "
Supt.—G. S. Sadler, Elmira, "
Master of Mach.—Jas. Dickson, Cortland "
Aud.—M. A. Smith, Elmira, "
Supt. of Bridges—E. H. Bartle, Cortland, "
Pur. Agt.—Edward Mahler, Elmira, "

CEDAR FALLS & MINN.—Cedar Fall, Ia., to Mona, on Minnesota state line, 75.58 miles.
Pres.—John S. Kelley, N. Y. C.
Sec. & Treas.—C. H. Booth, Dubuque, Ia.

CEDAR RAPIDS, IOWA FALLS AND NORTHWESTERN—(See B. C. R. & N. Ry. Co.)

CEDAR RAPIDS & MISSOURI RIVER—Cedar Rapids, Ia., to Missouri River, 274.01 miles. Std. G.
Pres.—Horace Williams, Cedar Rapids, Ia.
Vice Pres.—Wm. T. Glidden, Boston, Mass.
Treas.—D. P. Kimball, " "
Sec.—P. E. Hall, Cedar Rapids, Ia.
Aud.—H. V. Ferguson, " "
Asst. Treas.—J. Van Deventer, Clinton, Ia.

CENTRAL AMERICAN & PACIFIC—San Jose to Guatemala, Guat., 67 miles. G.3 ft.
Pres.—Dan. Butterfield, Mills Bld'g., N. Y. C.
Vice Pres.—R. T. Colburn, Elizabeth, N. J.
Treas.—I. E. Gates, " "
Sec.—John Hodges, Westfield, "
Gen. Supt. & Chief Eng.—W. C. Fitzsimmons, Escuintla, Guat.

CENTRAL OF GEORGIA—1,150 miles. G.5ft.
Pres.—W. G. Raoul, Savannah, Ga.
Gen. Supt.—William Rogers, " "

Chief Eng.—R. T. McDonald, Savannah, Ga.
Treas.—Edward McIntyre, " "
Aud.—F. H. Thompson, " "
Traffic Mgr.—W. F. Shellman, " "
Gen. Pass. and Freight Agt.—G. A. Whitehead,
Pur. Agt.—C. H. Carson. " "
Master Mech.—D. D. Arden, " "
Div. Master Mechs.—D. M. Gugel, Macon, Ga.; T. F. Warwick, Augusta, Ga.
Master Car Bldrs.—Frank Devine, Savannah; J. A. Knight, Macon, Ga.
Road Master—W. M. Stevens, Macon, Ga.
Supvs.—M. C. Tarver, Marlow, Ga.; H. J. Ivey, Tennille, Ga.; J. B. Stevens, Gordon, Ga., J. Esters, Milner, Ga.

CENTRAL IOWA—Albia, Ia., to Manly Junc., Ia., 501.02 miles. Std. G.
Vice Pres.—Russell Sage, N.Y.C.
Supt.—E. L. Dudley, Marshalltown, Ia.
Acting Chief Eng.—Geo. A. Pruden, " "
Sec. and Freight Agt.—J. Howard Pearson, Marshalltown, Ia.
Treas.—Seth Zug, " "
Aud.—M. C. Helion, " "
Gen. Pass. and Ticket Agt.—R. S. McMurray,
Gen. Freight Agt.—H. L. Shute, " "
Asst. Pur. Agt.—W. R. Coppock, " "
Master Mech.—John Player, " "
Master Car Bldr.—T. L. Seevers, " "
Master Car Painter—F. J. Bates. " "

CENTRAL MASSACHUSETTS—Cambridge to Northampton, Mass., 116.7 miles. Std. G.
Pres.—Samuel N. Aldrich, Boston, Mass.
Sec. and Treas.—Geo. F. Seymour, " "
No operating staff. Road being reorganized.

CENTRAL ONTARIO—Picton, Ont., to Coe Hill, Ont., 104 miles. Std. G.
Pres.—S. J. Ritchie, Akron, O.
Gen. Mgr.—G. W. McMullen, Picton, Ont.
Sec. and Treas.—H. C. McMullen, " "
Master Mech.—James Falconer, Trenton "
Principal office and address, Chatam, Ont.

CENTRAL OF NEW JERSEY—Jersey City to Phillipsburg, N. J., 650.23 miles. Std. G. Leased by the Phila. & Reading.

CENTRAL OHIO—Bellaire, O., to Columbus, O., 127.29 miles. Std. G.
Pres.—J. H. Collins, Columbus, O.
Sec.—W. H. Ijams, Baltimore, Md.
Treas.—Dan Applegate, Zanesville, O.

CENTRAL PACIFIC—San Francisco, Cal., to Ogden, Utah, 1,215.14 miles. Std. G.
Pres.—Leland Stanford, San Francisco, Cal.
Vice Pres. and Gen. Agt.—C. P. Huntington, New York City.
Gen Mgr.—A. N. Towne, San Francisco.
Gen. Supt.—J. A. Filmore, " "
Asst. Gen. Supt.—R. H. Pratt, " "
Chief Eng.—Wm. Hood, " "
Sec.—E. H. Miller, Jr., " "
Treas.—Timothy Hopkins, San Francisco.
Gen. Aud.—Wm. H. Porter. " "
Master of Trans.—E. M. Railton, " "
Gen. Pass. and Ticket Agt.—T. H. Goodman, San Francisco.
Gen. Baggage Agt.—O. C. Wheeler, San Francisco.
Gen. Freight Agt.—Richard Gray, " "
Gen. Pur. Agt.—J. R. Watson, " "
Gen. Master Mech.—A. J. Stevens, Sacramento, Cal.

CENTRAL TEXAS & NORTHWESTERN—Ennis, Texas, to Waxahachie, Texas, 12 miles. Std. G.
Pres.—A. C. Hutchinson, New Orleans, La.
Vice Pres.—J. Waldo, Houston, Tex.
Sec.—H. Hall, " "
Treas.—E. W. Cave " "
Princ. office and addreas, Waxahachie, Tex.

CENTRAL VERMONT—Windsor, Vt., to Burlington, Vt., 516.6 miles. Std. C.
Pres.—Hon. J. Gregory Smith, St. Albans, Vt.
Vice Pres.—James R. Langdon, Montpelier, Vt.
Gen. Supt.—J. W. Hobart, St. Albans, Vt.
Chief Eng.—W. E. Babbitt, " "
Sec.—Hon. George Nichols, Northfield, Vt.
Treas.—D. D. Ranlett, St. Albans, Vt.
Aud.—E. G. Lucas, " "
Gen. Pass. Agt.—S. A. Cummings, " "
Gen Freight Agt.—Col. C. A. Chittenden, St. Albans, Vt.
Road Masters—T. J. Flanagan, West Oakland, Cal.; Thos. Fitzgerald, Carlin, Nev.; W. C. Ambrose, Tulare, Cal.; W. T. Lambie, Los Angeles, Cal.; R. L. Myrick, Stockton, Cal.; A. D. McWade, West Oakland, Cal.; J. J. Tracey, Lathrop, Cal.; A. L. Rabe, Blue Canon, Cal.; M. Sullivan, Truckee, Cal.; James Griffin, Humboldt, Nev.; Hugh Moy, Winnemucca, Nev.; W. M. Patterson, Wells, Nev.; A. G. Hart, Promontory, Utah.; John Mullen, Suisun, Cal.; E. Browning, Maxwell, Cal.; George Holland, Marysville, Cal.; M. F. Mullen, Merced, Cal.; Robert Hamill, Tulare, Cal.; H. F. Quinn, Daggett, Cal.; T. P. Sullivan, Fenner, Cal.; O. T. Cassin, Keene, Cal.; N. A. McDonald, Los Angeles, Cal.; E. J. Mulvihill, San Gorgonio, Cal.; C. K. Lambie, Yuma, A. T.; George A. Fayle, Maricopa, A. T.; S. R. McFarland, Benson, A. T.; C. E. Stephens, Deming, N. M.
Supt. of Bridges and Buildings—Arthur Brown, Oakland, Cal.

CENTRAL OF SOUTH CAROLINA—Lane, S. C., to Sumter, S. C., 40 miles. G. 5 ft.
Pres. and Gen. Mgr.—R. R. Bridgers, Wilmington, N. C.
Gen. Supt.—John F. Divine, " "
Eng.—B. R. Dunne, Wilmington, N. C.
Treas.—J. W. Thompson, " "
Aud.—W. A. Riach, " "
Gen. Pass., Ticket, Baggage and Freight Agt.—T. M. Emerson, Wilmington, N. C.
Master Mech.—John Bissett, Wilmington, N. C.

Div. Master Mech.—I. W. Dow, New London, Conn.
Master Car Builders—S. S. Beeman, Cannon, St. Albans, Vt.; N. C. Davis, Rutland, Vt.; S. O. Banks, New London, Conn.
Master Car Painter—Chas. A. French, St. Albans, Vt.
Div. Supts.—J. Burdett, Rutland, Vt.; I. B. Futvoye, St. Johns, P. Q.; E. F. Brooks, Brattleboro, Vt.; C. F. Spaulding, New London, Conn.
Supt. of Buildings—L. J. Swett, St. Albans, Vt.
Supt. of Bridges—C. H. Clark, " "
Road Masters—Wm. Hatch, St. Albans, Vt.; A. C. Bean, W. R. Junction, Vt.; E. W. Horner, Rutland, Vt.

CHARLOTTE, COLUMBIA & AUGUSTA—Charlotte N. C., to Augusta, Ga., 345.8 miles. G. 5ft.
Pres.—A. C. Haskell Columbia, S. C.
Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond, Va.
Supt.—G. R. Talcott, Columbia, S. C.
Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond, Va.
Supt.—G. R. Talcott, Columbia, S. C.
Asst. Eng.—Thos. Bernard, " "
Sec.—C. Bonknight, " "
Treas.—J. C. B. Smith, " "
Aud.—John Craig, " "
Traffic Mgr.—Sol. Haas, Richmond, Va.
Gen. Pass. Agt.—M. Slaughter, " "
Asst. Gen. Freight and Pass. Agt.—D. Cardwell, Columbia, S. C.
Gen. Freight Agt.—J. H. Drake, Richmond, Va.
Gen. Bag. Agt.—J. H. Hill, " "
Pur. Agt.—J. P. Minetree, " "
Wood and Cross-tie Insp.—W. W. Holiday, Columbia, S. C.
Master Mech.—J. H. Green, " "
Road Masters—C. Warren, C., C. & A., Chester, S. C.; S. T. Blanton, C., C. & A., Batesburgh, S. C.; S. E. Wooten, narrow guage roads, Yorkville, S. C.; J. H. Kirkman, A. T. & O. Div., Troutmans, N. C.

CHARLOTTEVILLE & RAPIDAN—Orange, C. H., to Charlotteville, Va., 28.2
Pres.—L. W. Reid.
Sec. and Treas.—J. S. B. Thompson, Alexandria, Va.

CHARLESTON & SAVANNAH.—Charleston Junc., S. C., to Central Junc., Ga., 115 miles. G. 5 ft.
Pres.—H. B. Plant, New York.
Gen. Mgr.—H. S. Haines, Savannah, Ga.
Gen. Supt.—C. S. Gadsden, Charleston, S. C.
Chief Eng.—F. S. Prendergast, Savannah, Ga.
Sec.—B. F. Newcomer, Baltimore, Md.
Treas.—J. M. Lee, Charleston, S. C.
Aud. and Pur. Agt.—E. P. McSwiney, Charleston, S. C.
Gen. Pass., Ticket, Bag. and Freight Agt.—S.C. Boylston, Charleston, S. C.
Master Mech. and Car Builder—H. A. Ulmo, Savannah, Ga.
Foremen Loco. Repairs—H. W. Ulmo, Savannah, Ga.; P. E. Myers, Charleston, S. C.
Master of Trans. and Road Master—J. W. Craig Charleston, S. C.
Supvs.—G. S. Fanning, Ravenel, S. C.; R. F. Austin, Ridgeland, S. C.

CHARTIERS—Mansfield, Pa., to Washington, Pa., 22.8 miles. Std. G.
Pres.—Geo. B. Roberts, Phila., Pa.
Sec.—Albert Hewson, "
Treas.—Taber Ashton, "
Prin. office and address, 233 S. 4th st., Phila., Pa.

CHATTARVI—Ashland, Ky., to Richardson Ky., 50 miles. Std. G.
Pres.—Geo. T. Stedman, Cincinnati, O
Vice Pres.—Geo. S. Richardson, Ashland, Ky
Gen. Mgr., Pass., Freight and Pur. Agt.—Chas. H. Rockwell, Ashland, Ky.
Sec. and Treas.—Geo. W. Carlisle, Cincinnati.
Aud.—H B. Butler, Ashland, Ky.
Supt. Mot. Power and Mach.—Jas. R. Martin, Ashland, Ky.
Master Car Builder—Jos. P. Burleigh, Ashland, Ky.
Road Master—Robert Marks, " "
Prin. office and address, New York City.

CHATEAUGAY—G.3. Miles operated, 34.
Pres.—Hon. Smith M. Weed, Plattsburgh, N.Y.
Gen. Mgr. and Pur. Agt.—A. L. Inman, Plattsburgh, N. Y.
Asst. Gen. Mgr.—Edward Hall, Rogersfield, N. Y.
Gen. Supt., Chief Eng. and Master Mech.—J. M. Davies, Rogersfield, N. Y.
Asst. Gen. Supt.—M. L. French, Plattsburgh, N. Y.
Sec.—H. M. Olmstead, 21 Cortlandt st., New York.
Treas.—Hon. A. Williams, Plattsburgh, N. Y.
Aud.—Talbot Olyphant, 21 Cortlandt st., New York.
Gen. Ticket Agt.—M. F. Parkhurst, Plattsburgh, N. Y.
Road Master—S. A. McMartin. Rogersfield, N. Y.

CHATEAUGAY—Plattsburg, N. Y., to Lyon Mt., N. Y., 34.33 miles. G. 3 ft.
Pres.—Smith W. Weed, Plattsburgh, N. Y.
Sec.—H. M. Olmstead. New York, N. Y.
Treas.—Andrew Williams, Plattsburgh, N. Y.
Gen. Mgr. and Purch. Agt.—A. L. Inman, Plattsburgh, N. Y.
Chief Eng.—E. Hall, Rogersfield, N. Y.
Master Trans.—M. L. French, Plattsburgh, N. Y.
Gen. Supt.—J. W. Davies, Rogersfield, N. Y.
Gen. Freight. Agt.—W C. French, Rogersfield, N. Y.
Gen. Ticket Agt.—M. F. Parkhurst, Rogersfield, N. Y.
Road Master—S. A. McMartin, " "
Master of Car Repairs—A. C. Kinney, Plattsburgh, N. Y.

CHEMUNG—Chemung Junc. to Watkins, N. Y., 34.1 miles.
Pres.—Geo. B. Roberts, Phila., Pa.
Treas.—J. S. Leib, Baltimore, Md.

CHERAW & CHESTER — Chester to Lancaster, S. C., 29 miles. G. 3 ft.
Pres.—W. H. Hardin.
Sec. & Treas.—D. Hemphill, Chester, S. C.

CHERAW & DARLINGTON & CHERAW & SALISBURY—Guage, 5. Miles operated, 65. (See Northeastern of South Carolina).

CHERAW & SALISBURY—Cheraw, S. C., to Wadesboro, N. C., 25 miles. G. 5 ft.
Pres.—B. D. Townsend, Society Hill, S. C.
Sec. and Treas.—J. H. McIver, Cheraw, S. C.
Gen. Mgr.—R. R. Bridgers, Wilmington, N. C.
Master Trans.—G. G. Lynch. Florence, S. C.
Gen. Supt.—J. F. Divine, Wilmington, N. C.
Gen. Ticket and Freight Agt.—T. M. Emerson, Wilmington, N. C.
Road Master—J. E. Kelley, Wadesboro, N. C.

CHEROKEE—Cartersville, Ga., to Esom Hill, Alabama line, 46 miles.
Pres.—Amos. G. West, Cedartown, Ga.
Sec. and Treas.—J. H. Browning, New York.

CHERRY VALLEY, SHARON & ALBANY—Cobles Kill to Cherry Valley, 21.5 miles.
Vice Pres.—Coe. F. Young, Honesdale, Pa.

CHESAPEAKE & OHIO—Newport News to Big Sandy River, W. Va., 511.71 miles, Std.G.
Pres.—C. P. Huntington, 23 Broad st., N. Y.
Vice Pres.—First, A. S. Hatch, 5 Nassau st., New York; Second, Wm. C. Wickham, Richmond, Va.
Gen. Mgr.—C. W. Smith, Richmond, Va.
Asst. to Gen. Mgr.—Don A. Sweet, "
Supt. of Trans.—C. H. Hudson, "
Div. Engs.—Eastern Division, J. J. Lyell, Richmond, Va.; Lexington Division, D. W. Lum, Lexington, Ky.
Gen. Freight Agt.—B. S. Fitch, Richmond, Va.
Gen. Pass. and Ticket Agt.—H. W. Fuller, Richmond, Va.
Sec. and Treas.—E. T. Tournier, 23 Broad st., N. Y.
Cashr.—John Garrett, Richmond, Va.
Aud. of Rev.—R. H. Fisher, "
Aud. of Disbursmt's.—W. H. Lowry, "
Pur. Agt.—A. S. Emmons, "
Gen. Bag. Agt.—Chas. Lorraine, "
Fuel Agt.—T. W. Hopkins. "
Supt. of Mot. Pwr.—T. L. Chapman, "
Master Car Builder—J. N. King,
Master Car Painters—J. F. Smith, Huntington, W. Va.; Thos. Byrne, Richmond, Va.
Supts.—East. Div., A. H. Wood, Richmond, Va.; Huntington Div., W. B. Ryder, Hinton, W. Va.; Lexington Div., J. D., Yarrington, Lexington, Ky.

CHESAPEAKE, OHIO & SOUTHWESTERN—Louisville, Ky., to Memphis, 398. 48 miles. Std. G.
Pres.—C. P. Huntington, New York.
Vice Pres.—John Echols, Louisville, Ky.
Gen. Supt.—D. W. C. Brown, "
Supt. of Roadway, Bridges and Building—James L. Frazier, Louisville, Ky.
Sec. and Treas.—I. E. Gates, New York.
Aud.—J. W. Baird, Louisville, Ky.
Gen. Pass., Ticket, Bag. and Freight Agt.—B. F. Mitchell, Louisville, Ky.
Pur. Agt.—H. E. Huntington, "
Fuel Agt.—W. H. Fenton, Elizabethtown, Ky.
Supt. Mot. Pwr. and Mach.—R. H. Briggs, Elizabethtown, Ky.
Supt. of Trans.—J. E. Reeves, Louisville; J. W. Scott, Cecelia, Ky.; J. R. Burch, Paducah, Ky.; J. M. Abbott, Fulton, Ky.; S. Carlin, Covington, Tenn.

CHESHIRE AND MONADNOCK (Leased)—G. 4-8½. Miles, 80.
Pres.—Hon. Wm. A. Russell, Lawrence, Mass.
Vice Pres.—E. C. Thayer, Keene, N. H.
Gen. Mgr.—R. Stewart, "
Treas. and Gen. Ticket Agt.—F. H. Kingsbury, Keene.
Gen. Bag. Agt—George A. Brown, "
Gen Freight Agt.—J. W. Dodge, "
Pur. Agt.—H. H. Stone, "
Fuel Agt. and Road Master—H. Hyland, "
Master Mech.—F. A. Perry, "
Master Car Builder—A. E. Howard, "

CHESTER & LENVIR—Chester, S. C., to Newton, N. C., 80.5 miles. G. 3 ft.
Pres.—A. C. Haskell, Columbia, S. C.
Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond, Va.
Sec.—C. Bouknight, "
Treas.—John C. B. Smith, Columbia, S. C.
Traffic Mgr.—Sol. Haas, Richmond, Va.
Supt.—G. R. Talcott, Columbia, S. C.
Aud.—John Craig, "
Gen. Pass. Agt.—M. Slaughter, Richmond, Va.
Actg. Gen Freight Agt.—J. H. Drake, "
Asst. Gen. Freight and Pass. Agt.—D. Cardwell, Columbia, S. C.
Eng. of Roadway—B. R. Dunn, "
Mast. of Mach.—J. H. Green, "

CHESTER VALLEY—Bridgeport to Downingtown, Pa., 24 miles.
Pres.—John F. Gilpin, Phila., Pa.
Treas.—Wm. H. Holstein, Bridgeport.

CHICAGO & ALTON—Joliet, Ill., to East St. Louis, Ill., 849.78 miles. Std. G.
Pres.—T. B. Blackstone, Chicago, Ill.
Vice Pres.—J. C. McMullin, Chicago.
Gen. Mgr.—C. H. Chappell, "
Supt. of Trans.—T. M. Bates, Bloomington, Ill.
Chief Eng.—K. F. Booth, Chicago.
Div. Engs.—H. C. Draper, Chicago; T. H. Hubbard, Louisiana, Mo.
Sec. and Treas.—C. H. Foster, Chicago.

Aud.—C. Kelsey, Chicago.
Gen. Pass. and Ticket Agt.—James Charlton, Chicago.
Gen. Bag. Agt.—C. Huntington, "
Gen. Freight Agt—H. H. Courtright, "
Pur. Agt.—A. V. Hartwell, "
Fuel Agt.—J. S. Conger, "
Supt. Mot. Pwr. and Mach.—Wm. Wilson, Bloomington, Ill.
Div. Master Mech.—L. H. Miller, Slater, Mo.
Foremen of Loco. Repairs—Geo. Gregg, Bloomington, Ill.; J. D. Johnson, Chicago; A. A. Van Horne, Joliet, Ill.; Ed. Schell, Bloomington, Ill.; —McIllroy, Alton, Ill.; A. L. Cooper, Venice, Ill.; Jos. Clough, Roodhouse, Ill.; M. J. Martin, Booth, Ill.; Geo. Green, Kansas City, Mo.
Foremen of Car Repairs—James Lonney, Bloomington, Ill.; A. Buchanan, Chicago; W. W. Buttolph, E. St. Louis, Ill.; Isaac Eldridge, Roodhouse, Ill.; M. Woodside, Booth, Ill.; A. M. Lain, Slater, Ill.; J. Townsend, Kansas City, Mo.

CHICAGO & ATLANTIC—Marion, O., to Hammond, Ind., 268.6 miles. Std. G.
Pres.—H. J. Jewett, New York.
Asst. to Pres.—Frederick Broughton, Chicago.
Gen. Supt. and Pur. Agt.—J. C. Williams, Chicago.
Eng.—S. H. Doty, "
Asst. E.—B. P. Griffith, Huntington, Ind.
Supt. Telegraph—W. H. Brimson, Chicago.
Sec.—E. B. Guthrie, "
Treas.—E. E. Willis, "
Aud.—Russel Elliott, "
Gen. Pass. and Ticket Agt.—S. W. Snow, "
Gen. Freight Agt.—A. Mackay. "
Mast. Mech.—G. A. Hill, Huntington, Ind.
Div. Supts.—J. H. Parsons, Western Div., Chicago; J. H. Tinney, Eastern Div., Huntington, Ind.
Master Car Painter—N. A. Elmquist, Bloomington, Ill.
Div. Supts.—A. M. Richards, Bloomington, Ill.; S. D. Reeves, Roodhouse, Ill.
Gen. Road Master—Wm. Riley, Bloomington, Ill.
Road Masters—James Lumsden, Joliet, Ill.; Thos. White, Bloomington, Ill.; Wm. Huskinson, Alton, Ill.; Timothy Sullivan, Louisiana, Mo.; John Dacy, Slater, Mo.

CHICAGO, BURLINGTON & KANSAS CITY—Viele, Ia., to Sumner, Mo., 191.3 miles. Std. G.
Pres.—W. W. Baldwin, Burlington, Ia.
Vice Pres. and Gen. Man.—T. J. Potter, Chicago, Ill.
Gen. Supt.—R. Law. Keokuk, Ia.
Asst. Supt.—C. M. Levey, "
Sec.—T. S. Howland, Burlington, Ia.
Asst. Treas. and Aud.—Howard Elliott, Keokuk, Ia.
Gen. Ticket and Freight Agt.—J. H. Best, Jr., Keokuk.
Gen. Bag. Agt.—M. B. Starring, "
Pur. Agt.—William Irving, "
Supt. Mot. Pwr. and Mach.—W. H. Bartlett, Keokuk.
Road Master—L. E. Atherton, "
Supt. Bridges and Buildings—S. F. Clapp, "

CHICAGO, BURLINGTON & QUINCY—Chicago to Denver, Col., 3,330.9 miles. Std. G
Pres.—C. E. Perkins, Burlington, Ia.
Second Vice Pres. and Treas.—J. C. Peasley, Chicago, Ill.
Third Vice Pres. and Gen. Mgr.—T. J. Potter, Chicago, Ill.
Asst. Gen. Man.—H. B. Stone, "
Gen. Supt. of Illinois Lines—J. D. Besler, Galesburgh, Ill.
Asst. Supt.—L. A. Howland, Chicago, Ill.
Gen. Supt. Lines in Iowa—W. F. Merrill, Burlington, Ia.
Asst. Supt.—O. E. Stewart, "
Chief Eng.—G. C. Smith, Chicago.
Consulting Eng.—R. J. McClure, "
Div. Engs.—P. J. Allen, Galesburg, Ill.; F. Lawlor, Burlington, Ia.
Sec.—H. W. Weiss, Chicago.
Gen. Aud.—J. L. Lathrop, "
Gen. Pass. Agt.—Perceval Lowell, "
Asst. Gen. Bag. Agt.—M. B. Starring, "
Gen. Freight Agt.—E. P. Ripley, "
Pur. Agt.—Wm. Irving, "
Wood, Tie and Fuel Agt.—D. Dorman, Burlington, Iowa.
Supt. Mot. Pwr.—G. W. Rhodes, Aurora, Ill.
Car Acct.—E. G. Squire, Chicago.
Div. Master Mechs.—L E. Johnson, Aurora, Ill.; Robert Colville, Galesburg, Ill.; A. Forsyth, Beardstown, Ill.; Joel West, Burlington, Ia.; C. W. Eckerson, Creston, Ia.
Foreman of Car Shops—E. N. Benedict, Aurora, Ill.
Master Car Painters—J. H. Long, Aurora, Ill.; L. R. McCoy, Galesburg, Ill.
Div. Supts.—Geo. Alexander, Aurora, Ill.; F. C. Rice, Galesburgh, Ill.; S. E. Crance, Beardstown, Ill.; O. E Stewart, Burlington, Ia.; J. B. Maxon, Ottumwa, Ia.; J. H. Duggan, Creston, Ia.
Road Masters—C. R. Meeker, Aurora, Ill.; John Sullivan, Galesburg, Ill.; W. B. Throop, Beardstown, Ill.; G. W. Fabens, Burlington, Ia.; G. Rose, Burlington, Ia., James Neylon, Ottumwa, Ia.; D. Freel, Chariton, Ia.; J. Welch, Chariton, Ia.; J. Wiseman, Creston, Ia.; M. Hogan, Red Oak, Ia.; C. L. Manholtz, Red Oak, Ia.

CHICAGO & CANADA SOUTHERN—Detroit River, Mich., to Chicago, Ill., 250 miles. Std. G.
Pres.—Augustus Shell, New York.
Vice Pres.—E. A. Wickes, "
Sec.—C. F. Cox, "
Treas.—C. Vanderbilt, "

CHICAGO, DETROIT & CANADA GRAND TRUNK JUNC.—Port Huron, Mich., to Detroit, Mich., 59.37 miles. Std. G.

Pres.—Jos. Hickson, Montreal, Can.
Vice Pres.—L. J. Seargeant, "
Sec. and Treas.—Robert Wright, "
Chief Eng.—E. P. Hannaford, "
Gen. Supt.—W. J. Spicer, "
Div. Supt.—R. Larmour, Stratford, Can.
Acct.—J. H. Muir, Detroit, Mich.

CHICAGO & EASTERN ILL.—Dolton, Ill., to Danville, Ill., 249.9 miles. Std. G.
Pres.—H. H. Stevens, Boston.
Vice Pres.—George H. Ball, Worcester, Mass.
Gen. Supt.—O. S. Lyford, Chicago, Ill.
Master of Trans.—P. W. Drew, Chicago.
Chief Eng.—S. H. Miller, Danville, Ill.
Sec.—A. S. Dunham, Chicago.
Treas.—J. C. Calhoun, "
Aud.—H. A. Rubidge, "
Traffic Mgr.—R. Forsyth, "
Gen. Pass., Ticket and Baggage Agt.—William Hill, Chicago.
Pur. Agt.—D. R. Patterson, "
Supt. Motive Power and Mach. and Master Car Builder—Allen Cook, Danville, Ill.
Master Car Painter—Frank Foat, Danville
Road Master—James Sloan, "

CHICAGO, FAIRCHILD & EAU CLAIRE—Fairchild, Wis., to Eau Claire River, Wis., 12 miles. Std. G.
Owner & Gen. Mgr.—N. C. Foster, Fairchild, Wis.
Sec.—G. A. Foster, "
Mast. Mech.—Milo Burkart, "
Pur. Agt.—C. J. Wickersham, Chicago Ill.

CHICAGO & GRAND TRUNK—Port Huron, Mich., to E. 6th St., Chicago, 330.5 miles. Std. G.
Pres.—Joseph Hickson, Montreal, P. Q.
Vice Pres.—L. J. Seargent, "
Gen. Mgr.—S. R. Callaway, Chicago.
Supt.—W. H. Pettibone, Battle Creek, Mich.
Chief Eng.—A. B. Atwater, "
Sec., Treas. and Aud.—Chas. Percy, Port Huron, Mich.
Traffic Mgr., Pass. and Ticket Agt.—Geo. B. Reeve, Chicago, Ill.
Gen. Baggage Agt.—J. E. Quick, Port Huron, Mich.
Pur. Agt.—A. Judd, Fort Gratiot, Mich.
Supt. Motive Power and Mach.—H. Roberts, Fort Gratiot, Mich.
Asst. Mechanical Supt.—J. A. Slack, Battle Creek, Mich.
Master Car Builder—Thos. Sutherland, Port Huron, Mich.
Master of Car Repairs—William Wanless, Port Huron, Mich.
Train Masters—J. K. V. Agnew, Western Division, Chicago, Ill.; A. R. McIntyre, Eastern Division, Battle Creek, Mich.
Road Masters.—J. Harrigan, Flint, Mich.; T. W. Raynor, Battle Creek, Mich.; Wm. Segerdahl, Valparaiso, Ind.
Bridge Insp.—S. W. McGee, Battle Creek, Mich.

CHICAGO & GREAT SOUTHERN—Fair Oaks, Ind., to Brazil, Ind., 124 m'ls. Std.G.
Pres.—Henry Crawford, Chicago.
Gen. Supt. and Pur. Agt.—Henry Crawford, Jr., Chicago.
Chief Eng.—F. H. Peters, "
Sec.—F. F. Lacey, "
Gen. Ticket and Freight Agt.—F. D. Raymond, Chicago.
Master Mech.—J. J. Curtis, Oxford, Ind.

CHICAGO & IOWA—Aurora, Ill., to Foreston, Ill., 104.5 miles. Std. G.
Pres.—F. H. Head, Chicago, Ill.
Gen. Mgr.—T. J. Potter, "
Gen. Supt. and Freight Agt.—W. H. Holcomb, Rochelle, Ill.
Sec.—L. O. Goddard, Chicago.
Treas.—J. C. Peasley, "
Asst. Treas.—C. F. Holcomb, Rochelle.
Aud. and Gen. Ticket Agt.—M. L. Ettinger, Rochelle.
Gen. Baggage Agt.—M. B. Starring, Chicago.
Pur. Agt.—William Irving, "
Master Mech.—H. S. Bryan, Aurora, Ill.
Supt. Track and Building.—Robert Wakefield, Rochelle, Ill.

CHICAGO, IOWA & DAKOTA—Eldora Junc., Ia., to Alden, Ia., 26.25 miles. Std. G.
Pres.—David Secor, Forest City, Ia.
Treas.—J. Thompson, "
Sec.—A. H. Chase, "
Chief Eng.—C. W. Paine, Eldora, Ia.
Gen. Mgr.—John Porter, "
Gen. Ticket Agt.—W. S. Porter, "
Gen. Supt.—J. W. Gill, "

CHICAGO, IOWA & NEBRASKA—Clinton, Ia., to Cedar Rapids, Ia., 82.84 miles. Std. G
Pres.—Horace Williams, Clinton, Ia.
Vice Pres.—W. F. Glidden. Boston, Mass.
Treas.—David P. Kimball, "
Sec.—J. Van Deventer, Clinton, Pa.

CHICAGO, MILWAUKEE & ST. PAUL—Chicago, Ill., to St. Paul, Minn., 47.60 miles. Std. G.
Pres.—Alex. Mitchell, Milwaukee, Wis.
Vice Pres.—Julius Wadsworth. New York.
Second Vice Pres.—John B. Dumont, "
Treas.—R. D. Jennings, Milwaukee, Wis.
Gen. Mgr.—S. S. Merrill, "
Asst. Gen. Mgr.—Roswell Miller, "
Sec. and Asst. to Mgr.—P. M. Myers, "
Sec. and Trans. Agt.—J. M. McKinley, N.Y.
Gen. Supt.—J. T. Clark, Milwaukee
Asst. Gen. Supts.—C. H. Prior, Minneapolis, Minn.; D. A. Olin, Racine, Wis.
Supt.—L. B. Rock, Milwaukee, Wis.
Gen. Solicitor—John W. Cary, "
Asst. Gen. Solicitor.—D. S. Wegg, "
Gen. Aud.—J. P. Whaling, "
Asst. Gen. Aud.—W. N. D. Winne, "
Comp.—E. J. Sewall, "
Freight Aud.—W. F. Dudley, "
Ticket Aud.—P. Tyrrell, "
Aud. of Express—Chas. E. Dudley, "

Ret. Ticket Agt.—F. W. Spear, Milwaukee, Wis.
Land Comr.—H. G. Hangan, "
Gen. Pass. and Ticket Agt.—A. V. H. Carpenter, Milwaukee, Wis.
Asst. Gen. Pass. Agt.—G. H. Heafford, Milwaukee, Wis.
Asst. Gen. Ticket Agt.—A. F. Merrill, Milwaukee, Wis.
Gen. Freight Agt.—A. C. Bird, "
First Asst. Gen. Freight Agt.—D. W. Keyes, Milwaukee, Wis.
Second Asst. Gen. Freight Agt.—N. G. Goll, Milwaukee, "
Chief Eng.—D. J. Whittemore, "
Asst. Chief Eng.—F. W. Kimball, "
Eng. Bdgs. and Bldgs.—R. A. Shailer, "
Mech. Eng.—J. N. Barr, "
Supt. Car Depot—John Bailie, "
Gen. Mast. Mech.—J. L. Lowry, "
Pur. Agt.—John J. Crocker, "
Gen. Storekeeper—John A. Whaling, "
Stationery Supply Agt.—E. F. Elwell, "
Car Service Agt.—W. L. Stone, "
Car Acct.—W. A. Givin, "
Supt. Tel.—G. E. Simpson, "
Supt. Dining Cars—L. A. Pease, Chicago, Ill.

CHICAGO AND NORTHWESTERN—Chicago, Ill., to East Omaha, Ia., 3,584.1 m'ls. Std. G.

Pres.—Albert Keep, Chicago.
Vice Pres.—M. L. Sykes, 52 Wall st., N.Y.
Second Vice Pres. and Gen. Mgr.—Marvin Hughitt, Chicago.
Gen. Supt.—C. C. Wheeler, "
Asst. Gen. Supts.—W. B. Linsley, Chicago; S. Sanborn, Winona, Minn.
Chief Eng.—E. H. Johnson, Chicago.
Sec.—M. L. Sykes, 52 Wall st., New York.
Treas.—S. O. Howe, "
Aud.—J. B. Redfield, Chicago.
Freight Traffic Mgr.—H. C. Wicker, "
Gen. Pass. Agt.—W. H. Stennet, "
Gen. Ticket Agt.—W. A. Thrall, "
Gen. Baggage Agt.—N. A. Phillips, "
Gen. Freight Agt.—W. S. Mellen, "
Pur. Agt.—R. W. Hamer, "
Division Supts.—Charles Murray, Edward J. Cuyler, Chicago; H. G. Burt, Boone, Ia; C. A. Swineford, Baraboo, Wis; W. P. Cosgrove, Winona, Minn.; W. F. Fitch, Escanaba, Mich.; J. S. Oliver, Huron, Dak.; M. Hopkins, Eagle Grove, Ia.
Supt. Mot. Power and Mach.—George W. Tilton, Chicago.
Div. Master Mechs.—W. A. Scott, Winona (Winona & St. Peter and Dakota Divisions), G. W. Lowe, Clinton, Ia. (Iowa & Northern Iowa Divisions), J. Symons, Escanaba (Peninsula Division), H. D. Page, Baraboo, Wis., (Madison Division).
Asst. Supt. Car Depart.—Wm. Campbell, Chicago.
Foreman of Car Repairs—W. B. White, "
Foreman of Car Painters—Wm. Amerson, "
Road Masters—W. H. Barnes, Chicago, Ill.; C. K. Bannister, Chicago; Albert A. Hinman, Oshkosh, Wis.; Patrick Flynn, Fond du Lac, Wis.; Miles Crandall, Oak Park, Ill.; E. K. Kittel, Asst., Chicago; Theo. A. Allen, Sterling, Ill.; Wm. C. Halsey, Clinton, Ia.; Alva L. Mead, Belle Plaine, Ia.; Wm. D. Hodge, Boone, Ia.; Eugene O'Neill, Carroll, Ia.; W. D. Robinson, Dunlap, Ia; I. A. Worcester, Ida Grove, Ia.; G. W. Quiggle, Jewell Junction, Ia.; Luke Flynn, Eagle Grove, Ia.; E. P. Edwards, Algona, Ia.; Charles E. Keys, Baraboo, Wis.; Geo. H. Stinson, Elroy, Wis.; Jas. Hallet, Madison, Wis.; John W. Wright, Madison, Wis.; Silas H. Brown, Montford, Wis.; Orlin Reeve, Marinette, Wis.; James H. McDonald, Escanaba, Mich.; A. M. Sutherland, Florence, Wis.; P. H. Jacobs, Rochester, Minn.; John S. Burke, Waseca, Minn.; John Rummings, Sleepy Eye, Minn.; I. G. Bates, Brookings, Dakota; A. C. Morse, Huron, Dakota; Edward Moriarety, Redfield, Dakota; E. F. Potter, Huron, Dakota.

CHICAGO, PEKIN & SOUTHWESTERN—(See Chicago, St. Louis & Western).

CHICAGO, ROCKFORD & NORTHERN—Flagg Centre, Ill., to Rockford, Ill., 28.54 miles.

Pres.—F. H. Head, Chicago, Ill.
Sec.—L. O. Goddard, "
Treas.—J. C. Peasley, "
Road Master—Robert Wakefield, Rochelle, Ill.
Pur. Agt.—Wm. Irving, Chicago.
Gen. Mgr.—T. J. Potter, "
Gen. Supt.—W. H. Holcomb, Rochelle, Ill.
Gen. Ticket Agt.—M. L. Etlinger, "
Master Mech.—H. S. Bryan, Aurora, Ill.

CHICAGO, ROCK ISLAND & PACIFIC—Chicago, Ill., to Council Bluffs, Ia., 1,381 miles. Std. G.

Pres. and Gen. Man.—R. R. Cable, Chicago, Ill.
First Vice Pres.—David Dows, New York.
Second Vice Pres. and Gen. Supt.—A. Kimball, Chicago.
Asst. Gen. Supt.—H. F. Royce, Davenport, Ia.
Div. Engs.—H. A. Parker, Chicago; B. B. Brayton, Davenport, Ia.
Sec. and Treas.—F. H. Tows, New York.
Local Treas.—W. G. Purdy, Chicago
Aud.—C. F. Jilson, "
Gen. Pass. and Ticket Agt.—E. St. John, "
Gen. Bag. Agt.—J. D. Marston, "
Gen. Freight Agt.—W. M. Sage, "
Pur. Agt.—F. A. Marsh, "
Fuel Agt.—M. R. Wood, "
Master Mech.—T. B. Twombley, "
Div. Master Mechs.—J. E. Morrill, Davenport, Ia.; J. G. Crockett, Stuart, Ia.; R. O. Carscadin, Trenton, Mo.; E. W. Wakefield, Keokuk, Ia.
Master Car Builder—B. K. Verbryck, Chicago.
Div. Car Builders—S. Pullman, Chicago; C. M. Leonard, Davenport, Ia.; C. R. Best, Trenton, Mo.; H. Kummer, Keokuk, Ia.
Master Car Painter—J. Rattenbury, Chicago.
Div. Supts.—R. H. Chamberlin, Chicago; J. Given, Des Moines, Ia.; G. F. Walker, Trenton, Mo.

Asst. Div. Supt.—J. C. Coombs, Keokuk, Ia.
Road Masters—I. Burnett, Joliet, Ill.; J. H. Preston, Des Moines, Ia.; G. W. Dye, Washington, Ia; W. F. Lee, Keokuk, Ia.

CHICAGO, ST. LOUIS & NASHVILLE—(Projected). St. Louis to Nashville.

CHICAGO, ST. LOUIS & NEW ORLEANS—New Orleans, La., to East Cairo, Ill., 548 miles. Std. G.
Pres.—James C. Clark, Chicago.
Treas.—R. S. Charles, New Orleans.
Sec.—H. H. Henry, New York.

CHICAGO, ST. LOUIS & PITTSBURGH—(See Pittsburgh, Cincinnati & St. Louis.)

CHICAGO, ST. PAUL, MINN. & OMAHA—Elroy, Wis., to Omaha, Neb., 1,279.94 miles. Std. G.
Pres.—Marvin Hughitt, 56 Kinzie st., Chicago.
Vice Pres., Treas. and Asst. Sec.—M. L. Sykes, 52 Wall st., N.Y.
Asst. Pres.—E. W. Winter, St. Paul, Minn.
Gen. Supt.—J. M. Whitman, "
Chief Eng.—Charles W. Johnson, "
Sec.—C. W. Porter, Hudson, Wis.
Aud.—H. A. Gray, St. Paul, Minn.
Traf. Mgr.—F. B. Clarke, "
Gen. Pass. and Ticket Agt.—T. W. Teasdale, St. Paul, Minn.
Gen. Freight Agt.—J. H. Hiland, "
Pur. Agt.—W. H. S. Wright "
Master Mech.—Matt Ellis, "
Asst. Master Mechs.—John J. Ellis, St. Paul, Ia.; H. C. Anderson, Sioux City, Ia.
Foremen Loco. Repairs—John McLeod, Spooner, Wis.; J. P. Thomas, St. James, Minn.; J. K. Brassil, Altoona, Wis.; W. C. Dallas, East St. Paul, Minn.; F. A. Haines, Omaha, Neb.
Master Car Builder—H. L. Preston, Hudson, Wis.
Foremen Car Repairs—J. R. Wilson, Hudson, Wis.; J. W. Liddick, Sioux City, Ia.
Div. Supts.—A. A. Hobart, St. Paul, Minn.; H. Spencer, St. James, Minn.; James McCabe, Omaha, Neb.
Road Masters—J. C. Thurston, Black River Falls, Wis.; W. T. Payne, East St. Paul, Minn.; T. McNaughton, Cumberland, Wis.; George King, Chippewa Falls, Wis.; A. Cox, Le Sueur, Minn.; Ed. Carnes, Sioux City, Ia.; C. E. McMillan, Sioux Falls, Dak.; R. A. Willis, Omaha, Neb.

CHICAGO & SPRINGFIELD—Gilman, Ill., to Springfield, Ill., 111.44 miles.
Pres.—James C. Clark.
Treas.—J. C. Welling, Chicago, Ill.

CHICAGO, ST. LOUIS & WESTERN—Gauge, 4-8½. Miles operated, 150.
Pres.—J. Irving Pearce Chicago, Ill.
Gen. Mgr., Chief Eng., Treas., and Pur. Agt.—F. E. Hinckley, Chicago.
Gen. Supt.—A. H. Crocker, Streator, Ill
Div. Eng.—A. Comstock, Chicago.
Sec., Gen. Pas. and Ticket Agt.—B. T. Lewis, Chicago.
Aud.—H. P. Radley, "
Fore. of Loco. Repairs—P. T. Hickman, "
Master Car Builder.—J. N. Chilson, "
Road Masters—E. P. Rockwell, Streator, Ill.; Dan Malone, Chicago.

CHICAGO & WESTERN INDIANA—Polk St., (Chicago) to Dolton, Ill., 49.17 miles. Std. G.
Pres.—S. R. Callaway, Chicago.
Gen. Mgr.—James Walsh, 94 Wash., st., "
Chief Eng.—I. Randolph, "
Sec. and Aud.—A. S. Dunham, "
Treas.—G. W. Stokes, "
Gen. Bag. Agt.—C. H. Gunn, "
Purch. Agt.—C. C. Nash, "
Master Mech.—H. C. Washburn, "
Road Master—W. R. Beauprie, "

CHICAGO & WEST MICHIGAN—La Crosse, Ind., to Pentwater, Mich., 412.74 miles. Std. G.
Pres.—N. Thayer, Jr., Boston, Mass.
Vice Pres. and Gen. Man.—George C. Kimball, Muskegon, Mich.
Gen. Supt.—A. M. Nichols, Grand Rapids, Mich.
Chief Eng.—J. W. Petheram, "
Sec. and Treas.—Charles Merriam, Boston, Mass.
Aud.—U. B. Rogers, Muskegon, Mich.
Asst. Treas.—C. L. Gunn, "
Gen. Pass., Ticket and Freight Agt.—I. H. Palmer, Grand Rapids, Mich.
Gen. Bag, Agt.—H. P. Dearing, Chicago.
Purch. Agt.—E. Hill, Muskegon, Mich.
Master Mech.—W. F. N. Davis. "
Div. Supt.—E. W. Bliss, Holland, Mich.
Gen. Road Master—Thos. Murphy, Muskegon, Mich.

CINCINNATI, ATLANTIC & COLUMBUS—Milford, O., to Newtonville, O., 11 miles. G., 3 ft.
Pres.—Thomas Cochran, Phila. Pa.
Vice Pres.—W. E. Lown, N. York.
Treas.—E. H. Potter, 34 Pine st., "
Sec.—P. J. Classon, " "
Asst. Sec.—S. J. Bivans, Fayetteville, O.

CINCINNATI, COLUMBUS & HOCKING VALLEY—Claysville, O., to Jeffersonville, O., 27.79 miles. Std. G.
Pres.—D. P. Hyatt, Cincinnati, O.
Recv'r.—Thomas Hanna, "
Sec. and Treas.—Jas. H. Matthews, "
Chief Eng.—H. Philips, Dayton, O.

CINCINNATI & EASTERN—Cincinnati, O., to Gallipolis, O., 118.2 Miles. G. 3 ft.
Rec. and Gen. Mgr.—S. Woodward, Cincinnati, O.
Gen. Supt.—G. H. Wilber, "
Eng.—G. W. Chadwick, "
Cashier for Rec.—T. D. Rhodes, "
Aud. and Gen. Ticket Agt.—Wm. Mansfield, Cincinnati, O.

Gen. Freight Agt.—Geo. D. Little, Cincinnati, O.
Master Mech.—P. W. Naughton, "
Road Master—W. L. King, "

CINCINNATI, GEORGETOWN & PORTSMOUTH—Columbus to Hamersville, O., 34.8 miles. G. 3 ft.
Pres.—M. Werk, Cincinnati, O.
Vice Pres.—A. Pfirrmann, "
Gen. Supt., Sec., Aud. and Purch. Agt.—M. Simmons, Cincinnati.
Treas.—W. E. Brachman, "
Supt. Motive Power and Machinery—J. C. Homer, Cincinnati, O.
Road Master—John Peterson, "
Supr. Bridges—Thomas Taggart, "

CINCINNATI & GREEN RIVER—Kings Mt., Ky., to Yosemite, Ky., 15 miles. G. 5 ft.
Pres.—E. Zimmerman, Cincinnati, O.
Vice. Pres.—J. J. Perkins, "
Supt., Chief Eng. and Road Master—George B. Harper, Yosemite, Ky.
Sec.—A. O. Watkins, Grove, Ky.
Gen. Pass., Ticket and Freight Agt.—R. A. Holden, Jr., Yosemite, Ky.
Purch. Agt.—J. W. McWhorter, Grove, Ky.
Master Mech.—Geo. Lewis, Yosemite, Ky.

CINCINNATI, HAMILTON & DAYTON—Cincinnati, O., to Dayton, O., 353.83 miles. Std. G.
Pres.—H. J. Jewett, New York City.
Vice Pres.—C. C. Waite, Cincinnati, O.
Gen. Supt.—C. J. Hepburn, "
Asst. Supt.—W. F. Stark, Toledo, O.
Eng.—Joseph Ramsey, Jr., Cincinnati, O.
Sec. and Treas.—F. H. Short, "
Aud.—C. B. Marsh, "
Gen. Ticket Agt.—Samuel Stevenson, "
Gen. Bag. Agt.—Joseph P. Cox, "
Gen. Freight Agt.—A. H. McLeod, "
Master Mech.—John Black, Lima, O.
Fore. of Loc. Rep.—C. C. Kline, Cincinnati, O.
Master Car Builder—W. H. H. Allison, Cincinnati, O.
Train Masters—A. Griggs, Cincinnati, O.; M. Mounts, Indianapolis, Ind.; T. Sullivan, Lima, O.
Suprs.—R. Brennan, Hamilton, O.; J. Jaubken, Lima, O.; J. Miller, Connersville, Ind.
Supt. Bridges and Buildings—H. Golden, Hamilton, O.

CINCINNATI, HAMILTON & INDIANAPOLIS—Hamilton, O., to Indianapolis, Ind., 98.9 miles.
Pres.—H. J. Jewett, N. York.
Treas.—F. H. Short, Cincinnati, O.

CINCINNATI, INDIANAPOLIS, ST. LOUIS & CHICAGO—Cincinnati to Lafayette, Ind., 364.55 miles. Std. G.
Gen. Supt.—J. W. Sherwood, Indianapolis, Ind.
Chief Eng.—T. O. Morris, "
Asst. Chief Eng.—E. A. Herman, "
Sec. and Treas.—E. F. Osborn, Cincinnati, O.
Gen. Pass. and Ticket Agt.—John Egan, Cincinnati, O.
Gen. Bag. Agt.—J. Heglin, "
Gen. Freight Agt.—H. J. Page, "
Pur. Agt.—George Tozzer, "
Supt. Motive Power and Mach.—J. S. Patterson, Cincinnati, O.
Freight and Ticket Acc'nt.—A. Wipper, Cincinnati, O.
Road Masters—J. C. McQuiston, Indianapolis; P. J. Kelly, Kankakee, Ill.

CINCINNATI, LAFAYETTE & CHICAGO—Lafayette, Ind., to Kankakee, Ill, 75.5 miles.
Pres.—M. E. Ingalls.
Sec. and Treas.—E. F. Osborn, Cincinnati.

CINCINNATI, NEW ORLEANS & TEXAS PACIFIC—Cincinnati, Ohio, to Chattanooga, Tenn., 335.9 miles. G. 5ft.
Pres. C., N. O. & T. P.; A. G. S., and N. O. & N., and Gen. Mgr. of entire system—John Scott, Cincinnati, O.
Pres. V. & M., & V., S. & P.—O. Plock, N. Y.
Asst. Gen. Mgr.—C. C. Harvey, Cincinnati.
Gen. Supt.—R. Carroll, Cincinnati.
Chief. Eng.—T. B. Nicholson, "
Sec. and Treas.—H. H. Tatem, Cinn. South. Div., Cincinnati.
Sec. V. & M. & V., S. & P.—D. Graff, N. York.
Sec. N. O. & N.—O. T. Ambrose, Cincinnati.
Treas. A. G. S., V. & M., V. S. & P., and N. O. & N. E.—F. Hahn, Chattanooga, Tenn.
Compt.—R. F. Munro, Cincinnati.
Gen. Pass. and Ticket Agt.—E. P. Wilson, "
Gen. Bag. Agt.—D. Ennis, "
Gen. Freight Agt.—H. Collbran, "
Pur. Agt.—R. W. Healy, "
Supt. Motive Power and Mach.—James Meehan, Ludlow, Ky.
Div. Master Mechs.—Cinn. Div.: A. Thompson, Chattanooga, Tenn.; Geo. Manuel, A. G. S. Div., Chattanooga, Tenn.; J. D. Browne, V. & M. Div., Vicksburg, Miss.; W. Bell Smith, Monroe, La.
Master Car Builder—J. Richardson, Ludlow, Ky.
Supts.—W. W. Wells, Cinn. South. Division, Somerset, Ky.; D. McLaren, A. G. S. Div., Chattanooga, Tenn.; T. S. Williams, N. O. & N. E. Div., New Orleans, La.; E. F. Raworth, V. & M. Div., Vicksburg, Miss.; F. Y. Dabney, V. S. & P. Div., Monroe, La.
Road Masters—M. Shea, Ludlow, Ky.; P. Nolan, Oakdale Junction, Tenn.; G. A. Preston, Monroe, La.; M. Rowan, Hattiesburg, Miss.

CINCINNATI & OHIO RIVER—Gauge, 4-8½. (Road under construction from Cincinnati to Gallipolis, O.)
Pres.—W. M. Ramsey, Cincinnati, O.
Sec.—W. R. Grimes, "
Chief Eng.—C. L. Gould "

CINCINNATI, RICHMOND & CHICAGO—Hamilton, O., to Ind. State Line, 37 miles.
Pres.—H. J. Jewett. New York.
Treas.—F. H. Short, Cincinnati, O.

CINCINNATI, RICHMOND & FT. WAYNE—Richmond, Ind., to Adams, Ind., 85.6 miles. Std. G.
Pres.—Wm. Parry, Richmond, Ind.
Vice Pres.—W. O. Hughart, Grand Rapids, Mich.
Sec. and Treas.—J. H. P. Hughart, Grand Rapids, Mich.

CINCINNATI, SANDUSKY & CLEVELAND—Sandusky, O., to Dayton, O., 154 miles.
Pres.—John S. Farlow, Boston, Mass.
Sec. and Treas.—J. L. Moore, Sandusky, O.

CINCINNATI, SELMA & MOBILE—Elizabeth, Ala., to Akron, Ala., 61 miles. G. 5 ft.
Pres.—Fred Wolffe, New York.
Gen. Supt.—A. McCollister, Selma, Ala.
Sec.—M. Calm, New York.
Treas. and Pur. Agt.—H. L. Wright, Selma, Ala.
Auditor, Gen. Pass., Ticket and Freight Agt.—A. McCollister, Selma, Ala.
Master Mech.—J. M. Levis, Marion, Ala.
Master Car Builder—J. C. Chapman, "
Road Master—J. P. Clay, Greensboro, Ala.

CINCINNATI & SOUTHEASTERN—Newport, Ky., to Pound Gap, Ky., 250 miles. Std. G.
Pres.—C. Miler, Franklin, Pa.
Vice Pres.—C. W. Mackey, "
Gen. Mgr.—J. V. Patton, Newport, Ky.
Treas.—I. Reineman, Franklin, Pa.
Sec.—H. M. Hughes, "

CINCINNATI & SPRINGFIELD—Cincinnati to Springfield, O., 23.9 miles.
Pres.—J. H. Devereux, Cleveland, O.
Vice Pres.—Stevenson Burke, "
Sec. and Treas.—Geo. H. Russell, "
Gen. Mgr.—E. B. Thomas, "
Traffic Mgr.—O. B. Skinner, "
Asst. Sec. and Treas.—Geo. S. Russell, "
Aud.—P. A. Hewitt, "
Gen. Freight Agt.—Lucien Hills, "
Gen. Pass. Agt.—A. J. Smith, "
Pur. Agt.—J. L. Yale, "
Asst. Gen. Freight Agt.—E. Hill, "
Gen. Master Mech.—W. F. Turreff, "
Gen. Bag. Agt.—D. M. Calkins, "
Gen. Road Master—G. M. Beach, "
Eng. of Bridges—W. C. Irwin, "
Supt. (C. & E. Div.)—Robert Blee, "
Supt. (Ind. Div.)—J. O. Ewan, Indianapolis, Ind.

CINCINNATI, VAN WERT & MICHIGAN—Paulding, O., to Greenville, O., 75.5 miles. Std. G.
Pres.—Grinnell Burt, New York.
Vice Pres.—J. M. C. Marble, Van Wert, O.
Gen. Supt.—E. C. Dawes, "
Asst. Gen. Supt.—R. J. Cavett, "
Chief Eng.—Everett Garrison, Greenville, O.
Sec. and Treas.—D. B. Halstead, New York.
Aud. and Gen. Pass. and Ticket Agt.—E. M. Reynolds, Van Wert, O.
Gen. Freight Agt.—H. R. Johnson, "

CINCINNATI, WABASH & MICHIGAN—Benton Harbor, Mich., to Anderson, Ind., 164.4 miles. Std. G.
Pres.—J. H. Wade, Cleveland, O.
Vice Pres.—Wm. Bingham, "
Gen. Mgr. and Pur. Agt.—Norman Beckley, Elkhart, Ind.
Supt.—O. W. Lamport, Wabash, Ind.
Sec. and Treas.—Wm. S. Jones, Cleveland, O.
Aud.—Jos. H. Craig, Elkhart, Ind.
Gen. Pass., Ticket and Freight Agt.—Owen Rice, Elkhart, Ind.
Master Mech. and Master Car Builder—S. B. Tinker, Wabash, Ind.
Gen. Bag. Agt.—E. E. Beckley, Elkhart, Ind.
Foreman of Loco. Repairs—John Griswold, Wabash, Ind.
Foreman of Car Repairs—George Petty, "
Train Master—C. H. Briggs, "
Road Masters—Robt. Melrose, Wabash, Ind.; Edward Mulcahy, Niles, Mich.

CINCINNATI AND WASHINGTON AND BALTIMORE—Cincinnati, O., to Belpre, O., 280.8 miles.
Pres.—Orland Smith, Cincinnati, O.
Gen. Mgr.—J. H. Stewart, "
Master of Trans.—J. E. Rose, "
Treas.—W. E. Jones, "
Aud.—Chas. F. Low, "
Gen. Pass. and Ticket Agt.—T. P. Barry, Cincinnati.
Gen. Freight Agt.—R. M. Fraser, "
Master Mech.—E. Evans, Chillicothe, O.
Supt. Car Dept.—T. G. Duncan, Zaleski, O.
Road Master.—S. W. Stone, Cincinnati.

CINCINNATI, WHEELING & NEW YORK—Senecaville, O., to Morgan Junction, O., 18 miles. Std. G.
Pres.—Thomas R. Sharp, 115 Broadway, New York.
Vice Pres.—F. M. Atkinson, N. D. Gallagher, Batesville, O. Batesville, O.
Gen. Supt.—F. M. Atkinson, "
Chief Eng.—J. W. Andrews, McConnellsville, O.
Asst. Chief Eng.—Capt. I. C. Ramsaw, "
Sec. and Treas.—W. H. Atkinson, Batesville, O.
Aud.—W. W. Elliott, "
Traffic Mgr.—L. I. Cutter, Cumberland, O.
Master Mech.—J. M. Hamsberry.

CITY AND SUBURBAN—Savannah, Ga., to Montgomery, Ga., 11.71 miles. G. 5 ft.
Pres.—James H. Johnston, Savannah, Ga.
Treas.—H. G. Smahl, "
Master Car Repairs—G. W. Mattaine, "

CLARKSBURG, WESTON & GLENVILLE—Clarksburg, W. Va., to Weston, W. Va., 26 miles. G. 3 ft.
Pres. and Gen. Mgr.—A. H. Kunst, Weston, W. Va.

Vice Pres.—J. M. Bennett, Weston, W. Va.
Sec.—W. G. Bennett, "
Treas.—M. W. Harrison. "
Gen. Freight Agt.—E.M.Vandervort, "
Supt.—M. Cleary, Jane Lew, W. Va.
Foreman Trestles—Wm. Courtright, "

CLAYTON & THERESA—Clayton to Theresa, N. Y., 16.81 miles.
Pres.—Alden F. Barker, Clayton, N. Y.
Sec., Treas. and Supt.—Russell B. Biddlecom, Orleans, N. Y.

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS—Cleveland, O., to Columbus, O., 473.65 miles. Std. G.
Pres.—J. H. Devereaux, Cleveland, O.
Vice Pres.—Stevenson Burke, "
Gen. Mgr.—E. B. Thomas, "
Eng. of Bridges—W. C. Irwin, "
Supt. of Construction—W. Cromer, Cleveland, O.; M. Maxwell, Indianapolis, Ind.
Treas.—Geo. H. Russell, Cleveland, O.
Aud.—P. A. Hewitt, "
Traffic Mgr.—O. B. Skinner, "
Gen. Pass. Agt.—A. J. Smith, "
Gen. Bag. Agt.—D. M. Calkins, "
Gen. Freight Agts.—Lucien Hills, Cleveland, O.; H. W. Gay, St. Louis.
Pur. Agt.—J. L. Yale, Cleveland, O.
Gen. Master Mech.—W. F. Turreff, "
Div. Master Mechs.—Wm. Garstang, Cleveland, O.; J. K. Lape, Brightwood, Ind.; T. W. Ransom, Mattoon, Ill.
Foremen of Car Dept.—A. G. Steinbrenner, Cleveland, O.; N. Mark, Brightwood, Ind.; H. S. Gordon, Dayton, O.
Div. Supts.—Robert Blee, Cleveland; J. O. Ewan, Indianapolis, Ind.; T. W. Burrows, St. Louis, Mo.; J. H. Barrett, Dayton.
Gen. Road Master—G. M. Beach, Cleveland.

CLEVELAND, DELPHOS & ST. LOUIS—Delphos, O., to Mt. Blanchard, O., 46 miles. G. 3 ft.
Pres.—Wm. Semple, Allegheny, Pa.
Vice Pres.—C. A. Evans, Delphos, O.
Gen.Mgr.and Pur.Agt.—I.H.Burgoon, "
Chief Eng.—W. H. Fuller, "
Sec.—J. D. Callery, Pittsburgh, Pa.
Treas.—Jos. Boehmer, Delphos, O.
Aud., Gen. Pass., Ticket and Freight Agt.—C. W. Risley, Delphos, O.
Master Mech.—B. F. Marshall, "

CLEVELAND, INDIANA & ST. LOUIS—Anderson, Ind., to Paris, Ill., 125 miles. S.G.
Pres.—John Lee, Anderson, Ind.
Recr.and Gen.Supt.—J.A.Larnerd, "
Chief Eng.—E. Cottingham, Noblesville, Ind.
Sec. and Aud.—E. P. Schlater, Anderson, Ind.
Treas.—W. P. Watson, New York.

CLEVELAND & MAHONING VALLEY—Cleveland, O., to Penn. State Line, 80.81 miles.
Pres.—Stevenson Burke, Cleveland, O.

CLEVELAND & MARIETTA—Marietta, O., to Canal Dover, O., 99.45 miles. Std. G.
Pres.—R. C. Livingston, New York.
Vice Pres. and Gen. Mgr.—M. D. Woodford, Toledo, O.
Chief Eng.—C. A. Wilson, "
Sec.—R. C Cline, Cambridge, O.
Treas.—E. B. De Yoe, "
Aud.—J. C. Webb, "
Train Master—T. C. Clark, "
Gen. Pass.and Ticket Agt.—J.M.Hall, "
Gen. Freight Agt.—A. G. Blair, "
Pur. Agt.—W. R. Woodford, "
Master Mech.—A. Galloway, Cambridge, O.
Road Master—J. I. Kidd, "

CLEVELAND, MT. VERNON & DELAWARE—Hudson, O., to Columbus, O., 143.85 miles. Std. G.
Recr.—Geo. D. Walker, Cleveland, O.
Gen. Supt. and Pur. Agt.—N. Monsarrat, Akron, O.
Chief. Eng.—R. French, "
Aud.—C. W. Schaap, "
Gen. Pass., Ticket, Bag. & Freight Agt.—E. T. Effleck, Columbus, O.
Mast.Mech.—G. M. Taylor, Mt. Vernon, O.
Foreman Loco. Reprs.—Geo.Flower, "
Mast. Car Build.—Chas. Roberts, "
Foreman Car Painters—B.F.Harris, "
Mast. of Trans.—R. G. Sharpe, "
Road Master—J. M. Munch, "
Div. Foreman—J. F. Donelon, Akron, O.

CLEVELAND & PITTSBURGH—Cleveland to Rochester, O., 198.25 miles. Std. G.
Pres.—J.N.McCullough, Pittsburgh, Pa.
Sec. and Treas.—Geo. A. Ingersoll, Cleveland, O.

CLEVELAND, LORAIN & WHEELING—Lorain, O., to West Wheeling, O., 157.5 miles. Std. G.
Pres.—Selah Chamberlain, Cleveland, O.
Vice Pres.—W. S. Streator, "
Gen. Man.—Oscar Townsend, "
Gen. Supt.—W. Thornburgh, Lorain, O.
Chief Eng.—C. M. Barber, Cleveland, O.
Sec. and Treas.—Chas. L. Cutter, "
Aud.—W. H. Park, "
Traffic Man,—W. H. Grout, "
Mast. Mech.—W A. Stone, Lorain, O.
Foreman Loco. Reprs.—C.H.Warburton, "
Foreman of Car Repairs—Geo. Butts, "
Road Master—James Reynolds, Russell, O.

CLEVELAND, YOUNGSTOWN & PITTSBURGH—Southington, O., to Steubenville, O., 132 miles. Std. G.
Pres.—H. W. Ford, New York.
Vice Pres.andChief Eng.—W.R.Bergholz, "
Asst. Gen. Supt. and Asst. Chief Eng.—D. T. Lumkey, Alliance, O.
Sec. and Treas.—T. T. Buckley, New York.
Traffic Man—E. E. Scranton, Alliance, O.
Mast. Mech.—M. R. Shatters, "
Road Master—Alex. Cowan, "

CLINTON & PORT HUDSON—Clinton, La., to Port Hickey, La., 21.5 miles. Std. G.
Owners—Pipes & Lyons, Clinton, La.
Chief Eng.—C. Corcoran, "
Mast. Mech.—Ried Blochman, "

COBOURG, PETERBOROUGH & MARMORA—Cobourg, Ont., to Chambliss, Ont., 47 miles. Std. G.
Pres. and Treas.—Col. W. P. Chambliss, Cobourg, Ont.
Gen. Mgr., Supt., Pass., Ticket, Freight and Pur. Agt.—James R. Barber, Cobourg, Ont.
Sec.—B. O. King, "
Mast. Mech.—James Clark, "
Mast. Car Build.—John Tinny, "
Road Master—N. Hickman, "

COLEBROOKVILLE—Pottstown to Barto, Pa., 15.5 miles.
Pres.—Jos. L. Bailey.
Treas.—John Welsh, Philadelphia, Pa.

COLORADO CENTRAL—Denver, Col., to Golden, Col, 330.4 miles. Std. and 3 ft. G.
Pres.—Sidney Dillon, New York.
Vice Pres. and Gen. Man.—S. H. H. Clark, Omaha, Neb.
Sec. and Treas.—Henry McFarland, Boston, Mass.
Gen. Supts.—A. A. Egbert, Denver, Col.; P. J. Nichols, Omaha, Neb.
Gen. Ticket Agt.—C. P. Stebbins, "
Gen. Freight Agt.—P. P. Shelby, "
Mast. Mech.—I. H. Congdon, "
Chief Eng.—J. Blickensdorfer, "

COLUMBIA & GREENVILLE—Columbia, S. C., to Greenville, S.C., 296.2 miles. G. 5 ft.
Pres.—A. C. Haskell, Columbia, S. C.
Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond, Va.
Supt.—G. R. Talcott, Columbia, S. C.
Ass. Eng.—R. Southgate, "
Treas.—J. C. B. Smith, "
Traffic Man.—Sol. Haas, Richmond, Va.
Gen. Pass. and Ticket Agt.—M. Slaughter, Richmond,
Gen. Bag. Agt.—J. H. Hill, "
Gen. Freight Agt.—J. H. Drake, "
Pur. Agt.—J. P. Minetree, "
Sup's.—Chas. Ellis, Jr., Columbia, S. C.; R. S. Ellis, Newberry, S. C.; J. N. Godsey, Belton, S. C.

COLUMBIA & PORT DEPOSIT—Columbia, Pa., to Port Deposit, Md., 44.18 miles.
Pres.—W. H. Wilson.
Sec. and Treas.—James R. McClure, Phila., Pa.

COLUMBIA & PUGET SOUND—Seattle to New Castle, Wash. Ter., 21.8 miles. G. 3 ft.
This road is owned by the Oregon Improvement Company, of which C. H. Prescott is President and General Manager, Portland, Or., and J. L. Howard Gen. Superintendent, Portland, Oregon.

COLUMBUS & EASTERN—Columbus, O., to Marietta, O., 140 miles. Std. G.
Pres.—J. E. Redfield, Essex, Conn.
Vice Pres.—G. G. Collins, Columbus, O.
Treas.—W. H. Albery, "
Sec.—J. C. Donaldson, "
Gen. Man. and Pur. Agt.—C. H. Roser, "
Gen. Ticket and Freight Agt.—W. W. Daniel, "
Road Master—S. J. Callaway, "

COLUMBUS, HOCKING VALLEY & TOLEDO—Toledo, O., to Pomeroy, O., 324 miles. Std. G.
Pres.—M. M. Greene, Columbus, O.
Vice Pres.—Stevenson Burke, Cleveland, O
Gen. Supt—George R. Carr, Columbus.
Engs.—W. H. Jennings, Columbus, O.; F. B. Sheldon, Columbus, O.
Sec. and Pur. Agt.—W. M. Greene, Columbus.
Treas.—W. N. Cott, "
Aud.—J. D. Lott, "
Gen. Pass. and Ticket Agt.—W. H. Harrison, "
Gen. Freight. Agt—W. A. Mills, "
Mast. Mech.—I. G. Hutchins, "
Mast. Car Build.—J. M. Rockafield, "
Mast. Car Painter—W. T. Hubbell, "
Div. Supts.—M. T. Seymour, Tol. Div., Columbus; M. P. L. Booth, Hoc. V. Div., Columbus; C. D. Norris, River Div., Logan, O.
Road Masters—W. C. Merritt, Lancaster, O.; A. L. Donaldson, Columbus, O.; E. G. Scanlan, Logan, O.

COLUMBUS, HOPE & GREENSBURG—Columbus, O., to Greensburg, Ind., 26 miles. Std. G.
Pres.—John E. Robbins.
Sec.—Cortez Ewing.
Treas.—W. J. Lucas, Greensburg, Ind.

COLUMBUS, KIN KORA & SPRINGFIELD—Kin Kora to New Lisben, N. J. 14.18 miles.
Pres.—John S. Irick, Vincentown, N. J.

COLUMBUS & MAYSVILLE—Columbus, O., to Aberdeen, O., 109 miles. G. 3 ft.
Pres.—C. S. Bell.
Treas.—E. L. Ferris.
Sec.—Thom. Hibben, Hillsboro, O.

COLUMBUS & ROME—Columbus, Ga., to Rome, Ga., 125 miles. G. 3 ft.
Pres.—John Peabody, Columbus, Ga.
Gen. Mgr. and Gen. Pass., Ticket, Bag.; Freight and Pur. Agt.—M. E. Gray, Columbus, Ga.
Sec. and Treas.—J. M. Frazier, "
Mast. Mech. and Road Master—J. D. McPhail, Columbus, Ga.

COLUMBUS, SPRINGFIELD & CINCINNATI—Columbus to Springfield, O., 44.37 miles.
Pres.—J. S. Farlow, Boston, Mass.
Sec. and Treas.—J. L. Moore, Sandusky, O.

COLUMBUS & WESTERN—Opelika, Ala., to Goodwater, Ala., 60 miles. G. 5 ft.

Pres.—W. G. Raoul, Savannah, Ga.
Gen. Mgr. and Chief Eng.—E.A.Flewellen, Opelika, Ala.
Sec. and Treas.—E. McIntire, Savannah, Ga.
Traffic Mgr.—W. F. Shellman, "
Gen. Pass. Ticket and Freight. Agt.—G. A. Whitehead, Savannah.
Pur. Agt.—C. H. Carson, Savannah, Ga.
Mast. Mech.—J. C. Albrecht, Columbus, Ga.
Mast. Car Build.—A. J. Nix, "
Road Master—R. A. Bridges, Opelika, Ala.

CONCORD—Concord, N.H., to Nashua, N.H., 141.71 miles. Std. G.
Pres.—Frederick Smyth, Manchester, N. H
Gen. Supt. and Pur. Agt.—H. E. Chamberlin, Concord, N. H.
Sec.—J. W. Fellows, Manchester, N. H.
Treas.—Nathan Parker, "
Gen. Ticket Agt.—F. E. Brown, Concord, N. H.
Gen. Bag. Agt.—J. M. Jones, "
Gen. Freight Agt.—Samuel Barrett, "
Fuel Agt.—W. H. Alexander, "
Mast. Mech. and Mast. Car Build.—J.T.Gordon, Concord, N. H.
Foreman of Loco. Repairs—Porter Crane, Concord,
Foreman of Car Repairs—Philip Flanders, Concord, N. H.
Mast. Car Painter—Warner Bailey, "
Road Masters—Perry A. Eaton, Wm.P. Burbank, Henry M. Wood, Manchester, N. H.

CONCORD & CLAREMONT—Concord, N. H., to Claremont Junc., N. H., 70.9 miles. Std. G.
Pres.—Henry C. Sherburne, Concord, N. H.
Supt.—Geo. E. Todd, "
Treas.—Geo. A. Kettell, Boston.
Cshr.—Geo. H. Hazeltine, Concord.
Gen. Ticket. and Freight. Agt.—W. F. Simons, Concord.
Gen. Bag. Agt.—D. W. Waldron, "
Fuel Agt.—Geo. E. Shepard, "
Foreman of Loco.Repairs—C.C.Aspinwall, "
Foreman of Car Repairs—Chas. Morgan, "
Foreman Car Painter—C. W. Hazeltine, "
Road Master—J. N. Perkins, Claremont, N. H.

CONCORD & PORTSMOUTH—Portsmouth to Manchester, N. H., 47 miles.
Pres.—Stephen Kenrick, Franklin, N. H.
Treas.—Moody Currier, Manchester, N. H.

CONNECTICUT CENTRAL—East Hartford, Conn., to Mass. State Line, 20.25 miles.
Pres. and Treas.—D.D.Warren, Springfield, Mass.
Sec.—T. M. Maltbie, Hartford, Conn.

CONNECTICUT & PASSUMPSIO RIVERS—White River Junc., Vt., to Canada Line, 147.05 miles. Std. G.

CONNECTICUT RIVER—Springfield, Mass., to S. Vernon, Vt., 79.85 miles. Std. G.
Pres.—N. A. Leonard, Springfield, Mass.
Gen. Supt. and Pur. Agt.—John Mulligan, Springfield, Mass.
Treas.—Seth Hunt, "
Aud.—J. Whittelsey, Northampton, Mass.
Gen. Acc'nt.—Wm. G. McIntyre, Springfield, Mass.
Gen. Ticket Agt—C. H. Cram, "
Gen. Bag. Agt.—W. E. Hill, "
Gen. Freight Agt.—H. E. Howard, "
Master Mech.—Wm. H. Stearns, "
Foreman of Loco. Repairs—C. H. Ginn, Springfield, Mass.
Foreman of Car Repairs—R. Hitchcock, Springfield, Mass.
Foreman Car Painter—C. E. Paige, "
Road Masters—J. R. Patch, Springfield, Mass.; Patrick Dee, Keene, N. H.

CONNOTTON VALLEY—Cleveland to Coshocton. O., 161 miles. G. 3 ft.
Pres.—Francis Bartlett, Boston.
Recr., Gen. Mgr. and Pass. and Freight Agt.—Samuel Briggs, Cleveland, O.
Chief Eng.—O. D. Leisenring, Canton, O.
Treas.—H. W. Waite, Boston.
Asst. Treas.—A. Thierry, Canton, O.
Aud.—F. E. Smith, "
Master of Trans.—R. D. Briggs, "
Master Mech.—B. C. Bosworth, "
Road Master—F. W. Jones, "

COOPERSTOWN & SUSQUEHANNAH VALLEY—Junc. (A. &. E. R. R.), to Cooperstown, N. Y., 16 miles. Std. G.
Pres., Gen. Mgr. and Pur. Agt.—Andrew Shaw, Cooperstown, N. Y.
Vice Pres.—E. M. Harris, "
Sec.,Treas.,Aud., Gen. Pass. and Ticket Agt.—B. M Cady, Cooperstown, N. Y.
Master Mech. and Car Builder—Alonzo Munford, Portlandville, N. Y.

CORNING, COWANESQUE & ANTRIM—(See Fall Brook Coal Co.)

CORNWALL—Cornwall, Pa., to West Lebanon, Pa, 12 miles. Std. G.
Pres. and Gen. Mgr.—Wm. Coleman Freeman, Cornwall, Pa.
Gen. Supt., Chief Eng. and Road Master—John M. Havard, Lebanon, Pa.
Sec.—J. P. Jackson, Cornwall, Pa.
Treas.—D. S. Hammond, Lebanon, Pa.
Gen. Ticket Agt.—E. L. Groff, Cornwall, Pa.
Gen. Bag. Agt.—John Deitrich, Lebanon, Pa.
Gen. Freight Agt.—B. F. Schools, "
Master Mech.—Henry Yeager, "
Foreman of Loco. Repairs—Henry L. Arnold, Lebanon, Pa.
Master Car Builder—Levi Blouch, "

CORNWALL & LEBANON—Cornwall, Pa. to Lebanon, Pa., 22 miles. Std. G.
Pres.—Robert H. Coleman, Cornwall, Pa.
Gen. Supt., Pass. and Freight Agt.—J. C. Jennings. General offices, Lebanon, Pa.

Aud.—J. E Jennings, Lebanon, Pa.
Sec. and Treas.—Hugh M. Maxwell, "
Supv.—John McDonnel, "

CONDERSPORT & PORT ALLEGHANY—Port Alleghany, Pa., to Condersport, Pa., 17 miles. G. 3 ft.
Pres.—F. W. Knox, Condersport, Pa.
Vice Pres.—C. V. Barse, Olean, N. Y.
Gen. Supt. and Pur. Agt.—B. A. McClure, Condersport, Pa.
Sec.—A. B. Mann, "
Treas.—M. W. Barse, Olean, N. Y.
Aud.—A. G. Olmstead, Condersport, Pa.

CROWN POINT IRON COMPANY'S—Crown Point, N.Y., to Hammondville, N.Y., 13 miles., G. 3 ft.
Pres.—Gen. John Hammond, Crown Pt., N. Y.
Gen. Mgr.—A. L. Inman, Plattsburgh, N. Y.
Supt. and Road Master—Jas. McMann, Crown Pt., N. Y.
Sec.—C. L. Hammond, "
Treas.—H. M. Olmstead, "
Aud.—Talbot Oliphant, New York, N. Y.
Pur. Agt. and Cshr.—H. L. Reed, Crown Pt., N. Y.
Master Mech.—C. W. Sanders, "
Master Car Builder—Z. C. Sherman, "

CRESENT SPRINGS—13 miles. G. 3 ft.
Pres.—Artemus Lamb, Clinton, Ia.
Gen. Mgr., Sec. and Treas.—David Joyce, Lyons, Ia.
Asst. Gen. Mgr.—W. R. Bourm, Shell Lake, Wis.
Gen. Supt.—John Devereux, "
Chief Eng.—Robt. Hoffman, "
Pur. Agt.—C. I. Wickersham, Chicago.
Supt. Motive Power and Mach.—Ira Wood, Shell Lake, Wis.
Master Car Builder—John Blackburn, "
Road Master—John Rock, "

CUMBERLAND—Spring Hill Junc., N.Scotia, to Parrsborro, N. Scotia, 32 miles. Std. G.
Pres.—John McDougall, Montreal, Can.
Vice Pres.—R. Cowans, "
Mang. Director—R. G. Lechie, Spring Hill Mines, N. S.
Supt. and Eng.—J. T. Morkill, Parrsboro, N. S.
Sec.—J. R. Cowans, Montreal, Que.
Traffic Mgr. and Pur. Agt.—J. G. Aikman, Parrsboro, N. S.
Master Mech.—Alex. Dick, Spring Hill Mine, N. S.

CUMBERLAND & MAURICE RIVER—Bridgeton, N. J., to Long Beach, N. J., 321.5 miles. Std. G.
Vice Pres.—S. Hicks Conard, Phila., Pa.
Gen. Supt., Pur. and Fuel Agt.—L. H. Dowdney, Bridgeton, N. J.
Chief Eng.—Wm. S. Lambert, Pt. Norris, N. J.
Sec. and Treas.—C. W. Littell. Phila., Pa.
Aud.—H. J. Greer, "
Road Master—Jos. Comer, Underwood, N. J.

CUMBERLAND & PENNSYLVANIA—Cumberland, Md., to Piedmont, Md., 55 miles. Std. G.
Pres.—Chas. F. Mayer, Baltimore, Md.
Gen. Supt. and Pur. Agt.—P. L. Burwell, Cumberland, Md.
Sec. and Treas.—C. W. Keim, Baltimore, Md.
Aud.—J. P. Hewitt, "
Master Mech.—N. W. Howson, Mt. Savage, Md.
Master Car Builder—Nathan Binnix, Mt. Savage, Md.
Road Master—O. C. Deffenbaugh, "

CUMBERLAND VALLEY—Harrisburg, Pa., to Potomac River Md., 125 miles. Std. G.
Pres.—Thos. B. Kennedy, Chambersburg, Pa.
Vice Pres.—Hon. John Stewart, "
Supt.—J. F. Boyd. "
Eng.—Chauncy Ives, "
Sec. and Treas.—E. M. Biddle, Carlisle, Pa.
Aud.—W. L. Ritchey. Chambersburg, Pa.
Gen. Ticket Agt.—A. H. McCulloh, "
Gen. Freight Agt.—A. L. Langdon. "
Master Mech.—A. S. Hull, "
Master Car Repairs—Casper Wicke, "
Foreman Car Painters—Geo. W. Pensinger, Chambersburg, Pa.
Road Master—Sam. M. Howard.

D.

DANBURY & NORWALK—Danbury, Conn., to Wilson Pt., Conn., 36.5 miles. Std. G.
Pres.—F. St. John Lockwood, Norwalk, Conn.
Vice Pres.—E. Tweedy, "
Supt.—C. M. Crawford, S. Norwalk, Conn.
Sec., Treas. and Gen. Ticket Agt.—Harvey Williams. Danbury, Conn.

DANVILLE, MACKSVILLE & SOUTHWESTERN—Danville, Va., to Moorsville, N. C. 170 miles. G. 3 ft.
Pres.—Thom. R. Sharp, New York.
Sec. and Treas.—E. C. Winstanley, "
Supt.—H. M. Shilver, Leaksville, N. C.

DANVILLE & NEW RIVER—Danville, Va., to Spencer, Va. 57 miles. G. 3 ft.
Pres. and Gen. Supt.—W. T. Sutherlin, Danville, Va.
Sec. and Treas.—George K. Griggs. "
Asst. Gen. Supt.—J. P. Nelson, "
Chief Eng.—S. F. Adams, Stuart, Va.

Master Mech.—M. T. Whittaker, Danville, Va.
Road Master—A. Wayland, "

DANVILLE, OLNEY & OHIO RIVER—Danville, Ill., to Ohio River., 243 miles. Std. G.
Pres.—Parker C. Chandler, Boston, Mass.
Gen. Mgr. and Recr.—Chas. Howard, Danville, Ill.
Train Master—S. P. Hare, "
Sec.—W. H. Brown, Kansas, Ill.
Treas.—Chas. A. Hovey, Boston, Mass.
Aud.—Thos. L. Hallworth, Danville, Ill.
Gen. Pass., Ticket and Freight Agt.—W. B. Dodds, Jr., Danville, Ill.
Master Mech.—W. A. Bell, Kansas, Ill.
Sup. of Maint. of Way—C. R. Harris, Olney, Ill.

DANVILLE & SHAMOKIN—Shamokin, Pa., to Danville, Pa., 19 miles. Std. G.
Pres.—Geo. de B. Keim, Phila. Pa.
Sec.—Howard Hancock, "
Treas.—John Welsh, "
Chief office and address, 227 S. 4th st., Phila., Pa.

DANVILLE & ST. LOUIS — G. 4-8½. (Building.)
Pres.—Sidney A. Stephens, Chicago.
Chief Eng.—Chas. H. Nash, 79 Dearborn st., Chicago.
Treas.—Robert Boyd, 143 Randolph st., Chicago.

DAYTON & MICHIGAN—Dayton, O., to Toledo Junc., O., 171.5 miles.
Pres.—A. J. Jewett, New York City.
Treas.—F. H. Short, Cincinnatti, O.

DAYTON & UNION—Dodson, O., to Union City, Ind., 46.76 miles. Std. G.
Pres.—C. C. White, Cincinnatti, O.
Vice Pres. and Gen. Mgr.—E. B. Thomas, Cleveland, O.
Sec. and Treas.—G. H. Russell, "
Supt.—J. H. Barrett, Dayton, O.
Aud.—P. H. Hewitt, "
Gen. Ticket Agt.—A. J. Smith, Cleveland, O.
Gen. Freight Agt.—Edgar Hill, "
Master of Mach.—W. F. Turreff, "
Road Master—G. M. Beach, "
Supt. of Bridges—W. C. Irwin, "
Pur. Agt.—J. L. Yale, "

DAYTON & WESTERN—Dayton, O., to State Line, Ind., 38.75 miles.

DELAWARE—Delaware Junc., Del., to Delmar (Md. Line), 83.83 miles.
Pres.—Sam'l M. Felton, Phila, Pa.
Sec. and Treas.—Manlove Hayes, Dover, Del.

DELAWARE & BOUND BROOK—Bound Brook Junc., N. J., to Delaware River (Pa. Line), 27 miles.
Pres.—Edward C. Knight.
Sec. and Treas.—James H. Stevenson, Phila., Pa.

DELAWARE & CHESAPEAKE—Clayton, Del., to Oxford, Md., 54.6 miles.
Pres.—Isaac Hinckley.
Sec. and Treas.—Robert Craven, Phila, Pa.

DELAWARE & HUDSON CANAL—600 miles. Std. G.
Pres.—Thos. Dickson, New York Coal & Iron Exchange, New York.
Vice Pres.—R. M. Olyphant, New York Coal & Iron Exchange, New York.
Gen. Mgr. and Pur. Agt.—C. F. Young, Honesdale, Pa.
Asst. to Gen. Mgr.—H. G. Young, Albany, N.Y.
Chief Eng.—C. W. Wentz, "
Sec.—J. W. Sprong, "
Treas.—J. C. Hartt, New York Coal & Iron Exchange, New York.
Aud.—R. A. Henry, New York Coal & Iron Exchange, New York.
Gen. Pass. and Ticket Agt.—D. M. Kendrick, Albany, N. Y.
Gen. Baggage Agt.—C. S. Pease, "
Gen. Freight Agt.—H. S. Marcy, "
Div. Supts.—C. D. Hammond, Albany, N. Y.; Theodore Voorhees, Troy, N. Y.; R. Manville, Carbondale, Pa.
Supt. Mach.—R. C. Blackall, Albany, N. Y.
Master Mechs.—Thomas Howard, Oneonta, N. Y.; J. L. Corey, Green Island, N. Y.; S. H. Dotterer, Carbondale, Pa.
Master Car Painter—S. F. Lanehart, Green Island, N. Y.
Road Master—Michael Dorsey, Albany, N. Y.

DELAWARE, LACKAWANNA & WESTERN—Delaware River (N. J. Line) to N. Y. State Line, 887.23 miles. Std. G.
Pres.—Samuel Sloan, 26 Exchange place, N. Y
Vice Pres.—Percy C. Pyne, New York.
Gen. Supt.—Wm. F. Halstead, Scranton, Pa.
Chief Eng.—James Archibald, "
Div. Eng.—Wm. Unruh, Hoboken, N. J.
Sec. and Aud.—Fred F. Chambers, 26 Exchange place, New York.
Treas.—Frederick H. Gibbens, 26 Exchange place, New York.
Gen. Pass. Agt.—Wm. F. Holwill, 26 Exchange place, New York.
Gen. Baggage Agt.—G. E. Zippell, Hoboken, N. J.
Gen. Freight Agt.—B. A. Hegeman, 26 Exchange place, New York.
Asst. Gen. Freight Agt.—Wm. S. Sloan, 26 Exchange place, New York.
Lumber and Oil Agt.—W. D. Hager, 26 Exchange place, New York.
Master Mech.—Walter Dawson, Scranton, Pa.
Div. Master Mech's.—W. H. Lewis, Hoboken, N. J.; C. Graham, Kingston, Pa.; Thomas Thatcher, Utica, N. Y.; Jas. Buchanan, Syracuse, N. Y.; Chas. Graham, Buffalo, N. Y.
Master Car Builder—Robert M'Kenna, Scranton, Pa.
Div. Master Car Builder—J. W. Baker, Dover, N.J.
Foreman Car Repairs—Geo. Faber, Buffalo, N.Y.
Foreman Paint Shop—James Runyon, Scranton, Pa.
Supts. Bridges and Buildings—S. Griffith, Hoboken. N. J.; E. H. Griffin, Scranton, Pa.
Div. Supts.—A. Reasoner, Morris & Essex Division, Hoboken, N. J.; W. B. Phelps, O. &

S. Division, Oswego, N. Y.; W. K. Niver, S. B. & N. Y. R., Syracuse, N. Y.; W. R. Humphrey, Cayuga Division, Ithaca, N. Y.; A. C. Salisbury, Utica Division (Assistant), Utica, N. Y.; F. A. Seabert, Buffalo Division (Assistant), Buffalo, N. Y.
Road Masters—J. Neafie, Boonton, N. J.; A. Babcock, Washington, N. J.; P. C. Dunn, Buffalo, N. Y.; P. H. McKeon, Leicester, N. Y.; Jas. Wynne, Elmira, N. Y.; I. H. Foster. Binghamton, N. Y.; Ira Griffin, Kingston, Pa.; Philip Lyons, Stroudsburg, Pa.; David Bryant, Waterville, N. Y.

DELAWARE, MARYLAND & VIRGINIA—100.3 miles. Std. G.
Pres.—N. L. McCready, New York.
Vice Pres. and Sec.—W. H. Stanford, 235 West street, New York.
Supt.—Thos. Groom, Lewes, Del.
Chief Eng.—John L. Mapes, Berlin, Md.
Treas.—D. H. Houston, Lewes, Del.
Aud.—H. S. Marshall, "
Traffic Mgr.—A. Brown, "
Master Mech.—Wm. G. Grier, "
Road Masters—D. Murphy, Milford, Del.; D. C. Lekites, Ellendale, Del.; Edw. Chase, Georgetown, Del.; Mitchell Warren, Lewes, Del.; C. Fleetwood, Georgetown, Del.; G. Fleetwood, Frankford, Del.

DELAWARE RIVER—Woodbury, N. J., to Penn's Grove, N. J., 20 miles. Std. G.
Pres.—Wm. S. Conner, Woodbury, N. J.
Gen. Supt. and Pur. Agt.—E. H. Green, Pedericktown, N. J.
Sec. and Treas.—S. T. Miller, Paulsboro, N. J.
Aud.—Geo. W. Reed, "

DENVER & BOULDER VALLEY—See (Union Pacific.)

DENVER & NEW ORLEANS—Denver, Col., to the Canadian River, 350 miles. Std. G.
Pres.—Hon. John Evans, Denver, Col.
Vice Pres.—J. S. Brown, "
Gen. Mgr. and Pur. Agt.—C. W. Fisher, Denver, Col.
Chief Eng.—P. F. Barr, "
Sec. and Aud.—Charles Wheeler, "
Traffic Mgr.—W. H. Price, "
Master Mech.—Jas. H. Kirk, "
Road Master—H. S. Goodwin, "

DENVER & RIO GRANDE—Denver, Col., to Utah Border, 1,685.07 miles. G. 3ft.
Pres.—Frederick Lovejoy, 47 William st., New York.
First Vice Pres.—Adolph Engler, 47 William st., New York.
Second Vice Pres. and Gen. Mgr.—D.C.Dodge, Denver, Col.
Gen. Supt. Colorado and New Mexico Lines—R. B. Cable, Denver, Col.
Chief Eng.—J. A. McMurtrie, "
Res. Eng.—F. P. King, South Pueblo, Col.
Div. Engs.—M. H. Rogers, South Pueblo, Col.; N. J. Chandler, Salt Lake City, Utah; Samuel McMurtrie, Bridgeport, Col.
Sec.—Wm. Wagner, 47 William st., New York.
Treas—W. M. Spackman 47 William st., N.Y.
Compt.—John Dougherty, 47 William st., New York.
Aud.—E. R. Murphy, Denver, Col.
Cshr.—J. W. Gilluly, "
Gen. Pass. and Ticket Agt.—F. C. Nims, Denver, Col.
Gen. Baggage Agt.—L. J. Kraemer, "
Gen. Freight Agt.—A. S. Hughes. "
Pur. Agt.—C. M. Hobbs, "
Fuel Agt.—S. O. Snyder, "
Supt. Motive Power and Mach.—N. W.Sample, Denver, Col.
Div. Master Mechs.—J. R. Groves, Denver, Col.; John Kelker, Pueblo, Col.; Q Lamplaugh, Alamosa, Col.; A. Jones, Salida, Col.; C. S. Smith, Salt Lake City, Utah.
Supt. Telgr.—B. F. Woodward, Denver, Col.
Master Car Builder—N. W. Sample, "
Supt. Express—G. W. Kramer, "
Div. Supts.—W. W. Borst, First Div., South Pueblo, Col.; Cole Lydon, Second Div., Alamoso, Col.; G. W. Cook, Third Div., Leadville, Col.; R. M. Ridgway, Fourth Div., Salida. Col.; W. H. Bancroft, Utah Div., Salt Lake City, Utah.
Gen. Road Master—A. Osborn, S. Pueblo, Col.

DENVER & RIO GRANDE WESTERN—Col. State line to Ogden, Utah., 368 miles. G. 3 ft.
Pres.—Wm. J. Palmer, New York City.
Vice Pres.—Geo. A. Lowe, Salt Lake City, U.
Treas.—Wm. M. Spackman, New York.
Mgr.—D. C. Dodge, Denver, Col.
Chief Eng.—Geo. Gross, Salt Lake City.
Sec.—Chas. W. Drake, New York.
Supt.—W. H. Bancroft, Salt Lake City.
Aud.—J. H. Bennett, Denver, Col.
Transfer Agt.—Chas. W. Drake, New York.

DENVER, SOUTH PARK & PACIFIC—Denver, Col., to Buena Vista, Col., 269.14 miles. G. 3 ft.
Pres.—Sidney Dillon, New York.
Vice Pres.—Elisha Atkins, Boston, Mass.
Sec and Treas.—Henry McFarland, "
Gen. Mgr.—S. H. H. Clark, Omaha, Neb.
Gen. Supt—A. A. Egbert, Denver, Col.
Chief Eng.—Jas. A. Evans, "
Gen. Ticket Agt.—C. S. Stebbins, Omaha, Neb.
Gen. Freight Agt.—P. P. Shelby, "
Master Mech.—I. H. Congdon, "
Pur. Agt—M. H. Goble, "

DENVER, WESTERN & PACIFIC—(See Union Pacific.)

DENVER, UTAH & PACIFIC—Denver, Col., to Hallack Junc., Col., 22.9 miles. G. 3 ft.
Pres.—Geo. M. Miller, New York.
Vice Pres.—David S. Babcock, "

Supt.—L. M. Fouts, Denver, Col.
Sec.—Geo. W. Carr, New York.
Treas.—Edward Morgan, "
Aud.—E. R. Standish, Denver, Col.

DES MOINES & FORT DODGE—Des Moines, Ia., to Fort Dodge, Ia., 144 miles. Std. G.
Pres. and Treas.—Chas E. Whitehead, New York.
Vice Pres.—Chas Dana, "
Supt., Purch. Agt. and Supt. Motive Power and Mach.—Chas. W. Gilmore, Des Moines, Ia.
Chief Eng.—James Carss, " "
Aud.—Wm. C. Matthews, " "
Gen. Pass., Ticket and Freight Agt.—Geo. W. Ogilvie, Des Monies, Ia.
Mast. Mech. and Foreman Loco. Repairs—John McGrayel, Grand Junc., Ia.
Mast. Car Builder and Painter—E. A. Avery, Grand Junc., Ia.
Road Master—H. McIntyre, " "

DES MOINES & MINNEAPOLIS—(See C. & N. W.)

DES MOINES NORTHWESTERN
Pres.—J. S. Polk.
Vice Pres.—J. S. Clarkson,
Sec.—J. S. Runnells, Des Moines, Ia.
Asst. Sec.—Jas. F. Howe, St. Louis, Mo.
Treas.—D. S. H. Smith.

DES MOINES, OSCEOLA & SOUTHERN—Des Moines, Ia., to Kansas City, Mo., 300 miles. G. 3 ft.
Vice Pres.—B. L. Harding, Des Moines, Ia.
Gen. Supt.—Henry Stivers, Osceola, Ia.
Chief Eng.—A. A. Rice, "
Sec. and Treas.—Aaron Stivers, "
Aud.—F. G. Jones, "
Gen. Ticket and Freight Agt.—F. W. Armstrong, Osceola, Ia.
Master Mech.—L. D. Berry, "
Master of Car Repairs—Elias Tonet, "
Supt. of Bridges—J. Thomas, "
Road Master—J. Houston, "

DETROIT & BAY CITY—Detroit to Bay City, Mich., 107.8 miles.
Pres.—Cornelius Vanderbilt, N. Y.

DETROIT, BAY CITY & ALPENA—Alger, Mich., to Au Sable, Mich., 48 miles, G. 3-2.
Pres. and Gen. Mgr.—R. A. Alger, Detroit, Mich.
Vice Pres.—H. R. Newberry, "
Treas. and Sec.—Jno. S. Newberry, "
Gen. Ticket Agt.—A. P. McCaul, E. Tawas, Mich.
Gen. Supt.—Milo Eastman, " "
Chief Eng.—C. H. Ellis, Detroit, Mich.
Gen. Freight Agt.—J. C. McCaul, "

DETROIT, GRAND HAVEN & MILWAUKEE—Detroit, Mich., to Grand Haven, Mich., 189 miles. Std. G.
Pres.—Jos. Aickson, Montreal, Can.
Mgr.—G. R. Nash, Detroit, Mich.
Supt.—W. J. Morgan, "
Chief Eng.—Geo. Masson, "
Sec. and Treas.—J. H. Muir, "
Aud,—M. J. Clark, "
Gen. Pass. and Freight Agt.—T. Tandy, Detroit, Mich.
Pur. Agt.—J. S. Lorimer, "
Mech. Supt.—H. Roberts, "
Foreman of Loco. and Car Repairs—W. Bleasdell, Detroit, Mich.

DETROIT, HILLSDALE & SOUTHWESTERN—Ypsilanti, Mich., to Bankers, Mich., 64.8 miles.
Pres.—Jno. B. Alley, Boston, Mass.

DETROIT, LANSING & NORTHERN—260.7 miles. Std. G.
Pres.—Alpheus Hardy, Boston, Mass.
Gen. Mgr.—J. B. Mulliken, Detroit, Mich.
Gen. Supt.—Jos. M. Fish, Iona, Mich.
Chief Eng.—J. J. McVean, "
Sec. and Treas.—Chas. Merriam, Boston, Mass.
Asst. Treas.—J. E. Howard, Detroit, Mich.
Aud. and Gen. Ticket Agt.—J. F. Reekie, Detroit, Mich.
Gen. Pass. and Freight Agt.—W. A. Carpenter, Detroit, Mich.
Pur. Agt.—Allan Bourn, "
Master Mech. and Car Builder—G. C. Watrous, Iona, Mich.
Gen. Road Master—John Doyle, "
Master Car Painter—A. P. Sweet, "

DETROIT, MACKINAC & MARQUETTE—Marquette, Mich., to Point St. Ignace, Mich., 152 miles. Std. G.
Pres.—James McMillan, Detroit, Mich.
Gen. Supt. and Purch. Agt.—D. McCool, Marquette, Mich.
Sec. and Treas.—Hugh McMillan, Detroit, Mich.
Aud.—E. W. Allen, Marquette, Mich.
Gen. Pass. and Freight Agt.—Frank Milligan, Marquette, Mich.
Master Mech.—J. B. Wilson, "
Road Master—C. H. Watson. "

DEXTER & NEWPORT—Newport to Dexter, Me., 14 miles.
Pres.—C. Shaw.
Treas.—Geo. Hamilton, Dexter, Me.

DOVER & WINNIPISEOGEE—Dover, N. H., to Alton Bay, N. H., 31 miles.
Pres.—Wm. Hale.
Treas.—G. W. Benn, Dover, N. H.

DUBUQUE & DAKOTA—Hampton, Ia., to Sumner, Ia., 63 miles. Std. G.
Pres.—G. H. Candee, New York.
Gen. Mgr. and Treas.—C. H. Booth, Dubuque, Ia.
Supt. and Chief Eng.—A. C. Goodrich, Hampton, Ia.
Treas.—C. H. Booth, Dubuque.

Aud. and Gen. Pass. Agt.—W S. Couch, Dubuque, Ia.
Master Mech.—H. G. Rust, Waverly, Ia.
Road Master—D. O'Leary, "

DUBUQUE & SIOUX CITY—Dubuque, Ia., to Iowa Falls, Ia., 142.74 miles.
Pres.—M. K. Jesup.
Vice Pres.—J. A. Roosevelt.
Sec—C. H. Booth.
Treas.—G. H. Candee.
Prin. offices Dubuque, Ia., and N. Y.

DUCK RIVER VALLEY—Columbia to Fayetteville, 49.5 miles. G. 3ft.
Pres.—F. J. Ewing, Columbia, Tenn.
Sec. and Treas.—Jo. J. S. Gill, Petersburg, Tenn.

DULUTH & IRON RANGE—Duluth, Minn., to Vermilion Lake 97 miles. Std. G.
Pres.—C. Tower, Duluth, Minn.
Vice Pres. and Treas.—Geo. C. Stone, St. Paul, Minn.
Sec.—J. P. Beck, Duluth, Minn.
Chief Eng. and Supt.—R. H. Lee, "
Asst. Supt.—Geo. H. White, Two Harbors, Minn.
Solicitor—H. F. Thompson, Duluth, Minn.
Aud.—A. H. Viele, "

DUNKIRK, ALLEGHENY VALLEY & PITTSBURGH—Dunkirk, N. Y., to Oil City, Pa., 106.5 miles. Std. G.
Pres.—E. D. Worcester, Grand Central Depot, New York.
Gen. Supt., Pass., Ticket and Freight Agt.—D. Thayer, Dunkirk, N. Y.
Asst Supt.—Chas. A. Clute, "
Sec. and Treas.—D. W. Pardee, Grand Central Depot New York.
Aud.—Wm. M. Lester, Dunkirk, N. Y.
Pur. Agt.—R C. Moore, Grand Central Depot, New York.
Master Mech., Car Builder and Painter—J. C. Haggett, Dunkirk, N. Y.
Road Master—J. P. Irwin, Dunkirk.

E.

EAST ALABAMA—Opelika Junc., Ala., to Buffalo, Ala., 20 miles. G. 5 ft.
Pres.—B. Perkins, 41 Wall st., New York.
Gen. Supt. and Pur. Agt.—W. W. Barnes, Opelika, Ala.
Sea.—Richard Irvin, Jr., 41 Wall st., New York.
Treas.—Osgood Welsh, " "
Road Master—J. D. White, Opelika, Ala.

EAST & WEST OF ALABAMA—Gainesville, Ga., to Birmingham, Ala., 200 miles. G. 3 ft.
Pres.—E. F Browning, 408 Broome st., N. Y.
Vice Pres.—Amos G. West, Cedartown, Ga.
Gen. Mgr.—John Postell, "
Chief Eng.—Thos. A. E. Evans, "
Div. Eng.—George D. Harris, "
Treas.—J. Hull Browning, 408 Broome st., New York.
Aud.—R. H. Cooper, Cedartown, Ga.
Gen. Pass., Ticket and Freight Agt.—G. T. Kershaw, Cedartown, Ga.
Pur. Agt.—J. L. Hurst, "
Master Mech.—C. F. West, "
Road Master—S. T. Cantrell, Cartersville, Ga.

EAST BRANDYWINE & WAYNESBURG—Downingtown to New Holland, 28.11 miles.
Pres.—John Cornog, Wallace, Pa.
Sec. and Treas.—James R. McClure, Phila., Pa.

EAST BROAD TOP—Mount Union, Pa., to Robertsdale, Pa., 30 miles. G. 3 ft.
Pres.—Wm. A. Ingham, 320 Walnut st., Phila.
Vice Pres.—Edward Roberts, Jr., 320 Walnut st., Phila.
Gen. Supt.—A. W. Sims, Orbisonia, Pa.
Sec. and Treas.—Wm. Boyd Jacobs, 320 Walnut st., Phila.
Master Mech.—A. W. Greenwood, Orbisonia, Pa.
Road Master—James G. Murphy, Orbisonia, Pa.

EAST FLORIDA—Georgia State Line to Jacksonville, Fla., 43 miles. G. 5 ft.
Pres.—H. S. Haines,
Treas.—Wm. P. Hardee, Savannah, Ga.

EASTERN—G. 4-8½. Miles operated, 283½
Pres.—Geo. E. B. Jackson, Boston.
Gen. Mgr.—Payson Tucker, "
Master of Trans.—D. W. Sanborn, "
Treas.—N. G. Chapin, "
Aud.—W. J. Hobbs, "
Gen. Pass. and Ticket Agt.—Lucius Tuttle, Boston.
Gen. Freight Agt.—W. F. Berry, "
Pur. Agt.—G. F. Hurd, "
Master Car Builder and Master of Rolling Stock—Amos Pilsbury. East Boston, Mass.; J. D. Billings, Asst., Salem, Mass.
Master Car Painters—Geo. H. Worrell, Salem, Mass.; Wm. B. Getchell, Boston.
Div. Supt.—J. W. Sanborn (Conway Division), Wolfboro Junction, N. H.
Master of Mant. of Way—H. Bissell, Salem, Mass.
Road Masters—A. C. Stevens, Salem, Mass.; D. L. Snow, Biddeford, Me.; E. Leavitt, Wolfboro Junction, N. H.

EASTERN KENTUCKY — G. 4-8½. Miles operated, 34.
Pres.—E. V. R. Thayer, Boston, Mass.
Vice Pres., Gen. Mgr. and Pur. Agt. — H. W. Bates, Greenup, Ky.
Chief Eng.—H. R. Weeks, " "
Sec. and Treas.—Richard Sullivan, Boston.
Master Mech.—A. D. Crawford, Hunnewell, Ky.
Road Master—Robert Leedy, Grayson, Ky.

EAST PENNSYLVANIA—Reading to Allentown, Pa., 71.2.
Pres.—G. A. Nicholls, Reading.
Treas.—John Welsh, Phila., Pa.

EAST ST. LOUIS & CARONDELET — East St. Louis, Ill., to Falling Spring, Ill., 11.5 miles Std. G.
Pres.—T. D Messler, Pittsburgh, Pa.
Gen. Supt.—Joseph Hill, St. Louis, Mo.
Sec.—J. B. Bowman, East St. Louis, Ill.
Treas.—J E. Davidson, Pittsburgh, Pa.
Cashier—G. K. Thomas, East St. Louis, Ill.

EAST TENNESSEE, VIRGINIA & GEORGIA — 1.097 miles. G. 5 ft.
Pres.—Samuel Thomas, 110 Broadway, N. Y.
Vice Pres. and Gen. Mgr.—Henry Fink, Knoxville, Tenn.
Gen. Supt. and Chief Eng.—John F. O'Brien, Knoxville.
Asst. Chief Eng.—Chas. H. Waring, "
Div. Engs.—J. W. Goodwin, Knoxville; Martin Palmer, Macon, Ga.
Sec.—L. M. Schwan, 110 Broadway, N. Y.
Treas.—Jas. G. Mitchell, Knoxville.
Treas. M. & C. Div.—H. C. Wilton, Memphis, Tenn.
Aud.—T. D. Flippen, Knoxville.
Aud. M. & C. Div.—T. M. Barker, Memphis, Tenn.
Gen. Pass. and Ticket Agt.—A. Pope, Knoxville.
Gen. Freight Agt.—J. R. Ogden, "
Pur. Agt.—J. E. Wilcox, "
Master Mechs.—B. J. Sitton, Knoxville; M. J. Rogers, Atlanta, Ga.; Simon Gay, Selma, Ala.; H. N. Burford, Memphis, Tenn.
Foreman of Loco. Repairs—Joseph Fisk, Knoxville.
Master Car Builders—Jos. Armbuster, Knoxville; W. W. Pierce, Selma, Ala.
Foreman of Car Repairs—R. T. Hayes, Knoxville.
Master Car Painter—E. S. Walker, "
Div. Supts. — F. K. Huger, Knoxville; J. M. Bridges, Selma, Ala.; J. W. Fry, Atlanta, Ga.; J. E. Mallory, Macon, Ga.; R. B. Pegram, Memphis, Tenn.
Road Masters—J. E. Platt, Morristown, Tenn.; J. H. Loyall, Knoxville; J. H. Justice, Riceville, Tenn.; J. H. Satterwhite, Atlanta, Ga.; G. W. Paine, Selma, Ala.; Jas. Gallion, Selma, Ala.; John W. Hawk, Memphis, Tenn.

EAST TENNESSEE & WESTERN — Johnson City, Tenn., to Cranbery, N. C., 34 miles. G. 3 ft.
Pres.—Gen. A. Pardee, Jr., 237 S. Third st., Philadelphia.
Gen. Supt., Chief Eng. and Pur. Agt.—Thos. E. Matson, Elizabethton, Tenn.
Sec. and Treas.—John S. Wise, 237 S. Third st., Philadelphia.
Aud.—Wallace Hahn, Elizabethton, Tenn.

EASTERN MAINE — Bangor to Bucksport, Me., 20.68 miles. Std. G.
Pres.—Eugene Hale, Ellsworth, Me.
Treas.—G. W. Kimball, Rockland, Me.
Sec.—L. A. Emery, Ellsworth, Me.

EASTERN IN NEW HAMPSHIRE—Portsmouth, N. H., to Seabrook (Mass. Line), 15.84 miles.
Pres.—Moody Currier, Manchester, N. H.
Treas.—Edward A. Abbott, Boston, Mass.

EASTERN IN KENTUCKY—Riverton, Ky., to Willard, Ky., 34 miles. Std. G.
Pres —E. V. R. Thayer, Boston, Mass.
Vice Pres., Gen. Mgr. and Pur. Agt.—H. W. Bates, Greenup, Ky.
Sec. and Treas.—R. Sullivan, Boston, Mass.
Master Mech.—A. W. Crawford, Hunnewell, Ky.
Chief Eng.—H. R. Weeks, Greenup, Ky.
Road Master and Supt. Bridges—R. Leedy, Grayson, Ky.

EASTERN SHORE — Delmar, Md., to Crisfield, Md., 38 miles. Std. G.
(Officers, see New York, Phila. & Norfolk)

EAST ST. LOUIS & CARONDELET — Miles, 11½. Std. G.
Pres.—Thos. D. Messler, Pittsburgh, Pa.
Gen. Mgr.—Jos. Hill, St. Louis, Mo.
Sec. and Attorney—John A. Bowman, East St. Louis, Ill.
Treas. and Aud.—Jno. E. Davidson, Pittsburgh, Pa.
Cashier—Geo. K. Thomas, East St. Louis, Ill.
Asst. Supt.—Chas. A. Sanborn, " "
Road Master—Dennis Rush, " "

EAST TENNESSEE & WESTERN NORTH CAROLINA — 34 miles. G. 3 ft.
Pres.—A. Pardee, Jr., 237 S. 3d st., Phila.
Supt. and Eng.—Thos. E. Matson, Elizabethton, Tenn.
Sec. and Treas.—John S. Wise, Phila.
Aud.—Wallace Hahn, Elizabethton, Tenn.

EASTON & AMBOY — Easton, Pa., to Perth Amboy, N. J., 42 miles.
Pres. and Gen. Mgr.—E. P. Wilbur, Bethlehem, Pa.
Vice Pres.—Chas. Hartshorne, Phila., Pa.
Sec.—Jno. R. Franshawe, "
Treas. and Pur. Agt.—W. C. Alderson, "
Gen. Supt.—H. S. Goodwin, Bethlehem, Pa.
Asst. to Pres. and Gen. Agt.—Wm. Sayre, Bethlehem, Pa.
Chief Eng.—A. W. Stedman, Mauch Chunk, Pa.

Supt. Coal Branches—Jas. I. Blakslee, Mauch Chunk, Pa.
Aud.—Isaac McQuilkin, Phila., Pa.
Supts.—B. M. Div., A. G. Brodhead, Jr., Mauch Chunk, Pa.; N. J. Div., J. Donnelly, Perth Amboy, N. J.; Wy. Div., A. Mitchell, Wilkesbarra, Pa.
Gen. Traf. Agt.—John Taylor, Mauch Chunk, Pa.
Asst, Gen. Freight Agt.—J. H. Heckman, Mauch Chunk, Pa.
Gen. Pass. Agt.—E. B. Byington, " "
Gen. Ticket Agt.—A. W. Nonnemacher, Mauch Chunk, Pa.

EATONTON BRANCH — Milledgeville to Eatonton, 20 miles.
Pres.—E. Harvey, Eatonton, Ga.

EBENSBURG & CRESSON — Ebensburg to Cresson, Pa., 12.33 miles.
Pres.—A. A. Barker.
Treas.—F. H. Barker, Ebensburgh, Pa.

ECHO & PARK CITY — Park City, Utah, to Echc, Utah, 28.3 miles.
Pres.—S. H. H. Clark.
Vice Pres.—T. L. Kimball.
Sec. and Treas.—Erastus Young, Omaha, Neb.

EEL RIVER — Logansport, Ind., to Butler, Ind., 99.8 miles.
Fres.— Dan. L. Quirk, Ypsilanti, Mich.
Sec. and Treas.—P. W, Smith, Boston, Mass.

ELBERTON AIR LINE — Elberton, Ga., to Toccoa, Ga., 50 Miles. G. 3 ft.
Pres.—J. H. Jones, Elberton, Ga.
Gen. Mgr.—A. L. Rives, Richmond, Va.
Gen. Snpt.—E. Berkeley, Atlanta, Ga.
Treas.—W. E. Turner, Richmond, Va.
Aud.—E. A. Barber, "
Fuel Agt., Master Mech. Car Builder, Car Painter and Road Master—James Wilson, Toccoa, Ga.

ELIZABETHTOWN, LEXINGTON & BIG SANDY — Huntington, W. Va., to Lexington, Ky., 139.42 miles. Std. G.
Pres.—A. L. Reid, New York City.
Vice Pres.—Jno. Echols. Louisville, Ky.
Treas.—J. I. E. Gates, New York City
Gen. Mgr.—C. W. Smith, Richmond, Va.
Chief. Eng.—M. L. Lum, Winchester, Ky.
Sec.—W. C. Emery, New York City.
Supt.—J. D. Yorrington, Lexington, Ky.
Ticket and Freight Agt.—W. W. Monroe, Lexington, Ky.

ELMIRA, CORTLAND & NORTHERN — 120 miles. Std. G.
Pres.—Austin R. Corbin, New York.
Vice Pres.—J. Maxwell, "
Gen. Mgr.—A. A. McLeod, Elmira, N. Y.
Sec. and Treas.—W. G. Wheeler, New York.
Gen. Pass. and Freight Agt.—V. B. Myrtle, Elmira, N Y.
Pur. Agt. and Act. Aud.—Ed. Mahler, "
Master Mech.—Thos. Kearsley, Cortland, N. Y.
Road Master—Thos. O'Brien, Elmira, N. Y.

ELMIRA & WILLIAMSPORT—Williamsport, Pa., to Canandaigua, N. Y., 46.7 miles.
Pres.—Geo. B. Roberts, Phila., Pa.
Treas.—J. S. Leib, Balto., Md.

ELMIRA & WILLIAMSPORT—Williamsport, Pa., to Elmira, N. Y., 104.88 miles.
Pres.—Thomas Neilson.
Treas.—Louis P. Geiger, Phila., Pa.

ERIE AND GENESEE VALLEY—Mount Morris, N. Y., to Dansville, N. Y., 12.25 miles.
Pres.—Chas. Shepherd.
Sec. and Treas.—Anthony T. Wood, Dansville, N. Y.

ERIE AND HURON—Rond Eau, Ont., to Wallaceburg, Ont., 40 miles. Std. G.
Pres.—E. O. Bickford, Toronto, Ont.
Gen. Mgr.—J. J. Ross, Cnatham, Ont.
Chief Eng.—E. F. Fanquier, "
Treas. and Aud.—A. G. Laird, "
Sec.—A. MacNab, Toronto, Ont.
Gen. Freight and Pass. Agt.—W. N. Warburton, Chatham, Ont.
Mast. Mech.—C. H. Barker, "
Acting Road Master—Geo. Smith, "

ERIE AND NIAGARA—(See Canada Southern).

ERIE AND PITTSBURGH—(See Pennsylvania).

ERIE AND WYOMING VALLEY—45 miles. Std. G.
Pres.—John B. Smith, Dunmore, Pa.
Supt.—E. Van Etten, Port Jervis, N. Y.
Sec.—A. McDonough, Cortlandt st., N. Y.
Treas.—Geo. B. Smith, Dunmore, Pa.
Supt. Telg.—W. J. Holmes, Cortlandt st., N. Y.
Road Master—A. D. Blackinton, Dunmore, Pa.

EUFAULA & CLAYTON—Eufaula, Ala., to Clayton, Ala., 22 miles. G. 5 feet.
Pres.—W. G. Raoul.
Sec. and Treas.—E. McIntyre, Savannah, Ga.

EUREKA AND PALISADE—Palisade, Nev., to Eureka, Nev., 84 miles. G. 3 feet.
Pres.—Edgar Mills, Eureka, Nev.
Gen. Supt. and Pur. Agt.—B. Gilman, Eureka, Nev.
Chief Eng.—T. J. Read, "
Sec. and Aud,—E. F. Oatman, "
Treas.—National Bank of D. O. Mills & Co., Sacramento, Cal.
Gen. Pass., Freight and Ticket Agt.—J. L. Fast, Palisade, Nev.
Master Mech.—J. M. Crawford, "
Master Car Bldr.—A. S. Longley, "
Foreman Car Painter—Seth Ladd, "

EUREKA SPRINGS—Seligman, Mo. E., to Eureka Springs, Ark., 18.5 miles. Std. G.
Pres.—Richard C. Kerens, St. Louis, Mo.

Vice Pres. and Gen. Mgr.—Powell Clayton, Eureka Springs. Ark.
Sec.—B. Baer, Ft. Smith Ark.
Treas.—Logan H. Roots, Little Rock, Ark.
Chief Eng.—S. C. Martin, "
Aud.—A. H. Foote, Eureka Springs, Ark.
Pur. Agt.—C. H. Smith, St. Louis, Mo.
Mast. Mech.—J. B. Obenshain, Eureka Spr s, Ark
Road Master—Robt. Holland,

EUROPEAN & NORTH AMERICAN—Bangor, Me., to Vanceboro', Me., 114.2 miles.
Pres. and Treas.—Noah Woods, Bangor, Me.

EVANSVILLE & TERRE HAUTE—Evansville, Ind, to Terre Haute, Ind., 169 miles. Std. G.

Pres. and Gen. Supt.—D. J. Mackey, Evansville, Ind.
Chief Eng.—C. A. Slayback, Princeton, Ind.
Sec. and Treas.—W. D. Ewing, Evansville, Ind.
Aud.—E. B. Morgan, " "
Asst. Aud.—A. J. Steen, " "
Gen. Pass., Ticket and Freight Agt.—G. T. Grammer, Evansville, Ind.
Mast. Mech.—John Torrence, " "
Master Car Bldr.—Joseph Stiker, " "
Master Car Painter—Jas. Thomson, "
Road Master—W. L. Robbins, " "

EVANSVILLE, TERRE HAUTE & CHICAGO—Danville, Ill., to Terre Haute, Ind., 55 miles.
Pres.—Jos. Collett, Terre Haute, Ind.

F.

FAIRLAND, FRANKLIN & MARTINSVILLE—Fairland to Martinsville, 38.3 miles.
Pres.—M. E. Ingalls.
Sec. and Treas.—E. F. Osborn, Cincinnati.

FALL RIVER—New Bedford, Mass., to Fall River, Mass., 12.25 miles. Std. G.
Pres.—Chas. F. Choate, Boston, Mass.
Treas.—J. M. Washburn, " "

FALL BROOK COAL COMPANY—243 mls. Std. G.

Pres.—Geo. J. Magee, Corning, N. Y.
Vice Pres. and Treas.—John Lang, "
Gen. Supt.—A. H. Gorton, "
Asst. Supt.—W. E. Gorton, "
Chief Eng.—Anton Hardt, "
Asst. Chief Eng.—Henry Herden, "
Sec.—Dan. Beach, "
Aud.—Wm. Nicholson, "
Gen. Pass., Ticket, Bag. and Freight Agt.—H. A. Horning, Corning, N.Y.
Pur. Agt.—W. H. Chaphe, "
Master Mech.—O. C. Patchell, "
Foreman of Loco. Repairs—Henry Wheeling, Corning, N. Y.
Master Car Builder—C. J. Butler, "
Master Car Painter—Wm. Brady, "
Road Masters—Michael Clancy, Corning, N.Y.; Z. W. Baker, John Smith, Wellsboro, Pa.
Traf. Mgr.—H. A. Horning, Corning. N. Y.
Supvs.—Z. W. Baker, Wellsboro, Pa.; M. Clancy, Corning, N. Y.; John Smith, Wellsboro, Pa.

FARGO SOUTHERN—Fargo, Dak., to Ortonville Minn., 125 miles. Std. G.
Pres.—H. E. Sargent, Chicago.
Treas.—T. W. Wadsworth, "
Supt.—D. R. Taylor, Fargo, Dak.
Sec.—A. W. Edwards, "
Gen. Freight and Pass. Agt.—C. J. Eddy, Fargo, Dak.

FARGO AND SOUTHWESTERN—Fargo, Dak., to Fort Yates (Missouri R.), 200 miles.
Pres.—Geo. H. Adams, N. Y. City.
Sec. and Treas.—Sidney Starbuck, "

FAYETTE COUNTY—Uniontown, Pa., to Connellsville, Pa., 12.9 miles. Std. G.
Pres.—Wm. Beeson
Sec. and Treas.—Jasper M. Thompson, Uniontown, Pa.

FERNANDINA & JACKSONVILLE—Hart's Road to Jacksonville, Fla., 21.5 miles. G. 5 ft.

FERRO CARRIL NACIONAL DEL ESTINO DE TEHUANTEPEC—79 kilometres. Std. G.
Commissionario—Don Delfin Sanchez, City of Mexico.
Gen. Mgr.—Don Juan Coboy Sierra, Tehuantepec. Mexico.
Jefe del Commission de Inginieros—Alexandro Preito, Tehuantepec, Mex.
Asst. Eng.—M. Mirraflores, "
Sec., Treas. and Aud.—Jose Ma Sanchez, City of Mexico.
Master Mech.—Pedro Unanie, Tehuantepec, Mex.

FITCHBURG—Boston, Mass., to Fitchburg, Mass., 189 miles. Std. G.
Pres.—E. B. Phillips, Boston, Mass.
Gen. Supt.—John Adams, "
Chief Eng.—E. K. Turner, Fitchburg, Mass.
Corp. Clerk.—Thomas Whittemore, Boston.
Treas.—M. D. Benson, "
Chief Clerk and Aud.—H. F. Whitcomb, "
Traf. Mgr.—John Whitmore, "
Gen. Pass. Agt.—J. R. Watson, "

Gen. Ticket Agt.—F. O. Heald, Boston.
Gen. Bag. Agt.—Geo. F. Foye, "
Gen. Freight Agt.—C. L. Hartwell, "
Pur. Agt.—F. S. Pratt, "
Supt. Mot. Power and Mach.—Orlando Stewart, Charlestown, Mass.
Asst. Supt. Mot. Power and Mach.—W. A. Foster, Fitchburg, Mass.
Master Car Builder—J. W. Marden, Charlestown, Mass.
Asst. Master Car Builder—C. A. Goodrich, Fitchburg, Mass.
Road Master—L. J. Spaulding, Ayer, Mass.
Asst. Road Masters—G. W. Bishop, Athol, Mass.; T. J. Dickey, Charlestown, Mass.

FLEMINGTON—Lambertville to Flemington, N. J.
Treas.—Hugh B. Ely.

FLINT & PERE MARQUETTE—Monroe, Mich., to Luddington, Mich., 361.31 miles. Std. G.
Pres.—Wm. W. Crapo, New Bedford, Mass.
Vice Pres., Gen. Mgr. and Treas.—H. C. Potter, East Saginaw, Mich.
Asst. Gen. Mgr., Gen. Pass. and Ticket Agt.—David Edwards, East Saginaw, Mich.
Supt.—Sanford Keeler, "
Chief Eng.—Wm. B. Sears, "
Solicitor—Wm. L. Webber "
Sec.—H. C. Potter, Jr., "
Aud.—Gilbert W. Ledlie, "
Gen. Bag. Agt.—L. H. Plues, "
Asst. Gen. Freight Agt.—Arthur Patriarche, East Saginaw, Mich.
Pur. Agt.—Geo. G. Cook, "
Master Mech.—T. J. Hatswell, "
Master Car Builder—R. McPherson, "
Master Car Painter—Daniel Herbage, East Saginaw, Mich.
Foreman Car Painters—Wm. Sutton, East Saginaw, Mich.
Div. Supts.—M. V. Meredith, Western Division; W. F. Potter, Eastern Division, East Saginaw, Mich.
Road Master—Geo. M. Brown, East Saginaw, Michigan.
Foremen.—Anthony Rose, Monroe, Mich.; Andrew Germer, Flint, Mich., Nathan Killen, East Saginaw, Mich.; John Ross, Clare, Mich.; Nicholas Ungers, Luddington, Mich.

FLORIDA CENTRAL & WESTERN—(See Florida R. R. & Navigation Co.)

FLORIDA RAILWAY & NAVIGATION—509 miles. G. 5 feet.
Pres.—B. S. Henning, New York.
Vice Pres.—C. D. Willard, "
Gen. Supt. and Pur. Agt.—D. E. Maxwell, Fernandina, Fla.
Chief Eng.—J. W. Bushwell, "
Aud.—T. W. Roby, Jacksonville, Fla.
Gen. Pass. and Freight Agt.—A. O. MacDonnell, Fernandina, Fla.
Fuel Agt.—C. E. Martin. "
Master Mech.—R. V. Dohoney, Fernandina, Fla.
Road Masters—C. E. Martin, B. M. Burroughs, Fernandina, Fla.

FLORIDA SOUTHERN—Palatka, Fla., to Gainesville, Fla., 122 miles. G., 3 feet.
Pres.—John W. Candler, Boston, Mass.
Vice Pres.—John R. Hall, "
Gen. Mgr.—Sherman Conant, Palatka, Fla.
Supt., Pur. Agt. and Supt. Mot. Power and Mach.—J. D. Hollister, Palatka, Fla.
Chief. Eng.—W. P. Cooper, "
Sec. and Treas.—Wm. L. Candler, Boston, Mass.
Aud.—J. A. Godspeed, "
Gen. Pass. and Freight Agt.—O. W. Brownwell, Palatka, Fla.
Supt. St. John and Lake Eustis Divs.—W. J. Jarvis, Mt. Mason, Fla.
Foreman Loco. and Car Repairs—T. A. Wallace, Mt. Mason, Fla.
Master Car Painter—R. B. Gilbert, "
Road Master—James S. Jolly, Gruelle, Fla.

FLORIDA TRANSIT & PENINSULAR—(See Florida Railroad and Navigation.)

FONDA, JOHNSTOWN & GLOVERSVILLE—Fonda, N. Y., to Gloversville, N. Y., 26.17 miles. Std. G.
Pres.—W. J. Heacock, Gloversville, N. Y.
Vice Pres.—D. A. Wells, Johnstown, N. Y.
Gen. Supt. and Sec.—L. Caten, Gloversville, N. Y.
Treas. John McNab, "
Master Mech.—G. V. Putnam, "

FOND DU LAC, AMBOY & PEORIA—(See Chicago, Milwaukee & St. Paul.)

FORT MADISON & NORTHWESTERN—Fort Madison, Ia., to Birmingham, Ia., 45 miles. G. 3 ft.
Pres.—John Atlee, Fort Madison, Ia.
Vice Pres.—Henry Ketchum, New London, Wis.
Gen. Supt., Treas., Pass., Ticket, Bag., Freight, Pur. and Fuel Agt.—S. B. Kenrick, Fort Madison, Ia.
Sec.—E. W. Merrill,
Master Mech. and Car Builder—J. L. Lamb, Fort Madison, Ia.
Road Master—T. A. Ketchum, "

FORT SCOTT, SOUTHEASTERN & MEMPHIS—102.85 miles.
Pres.—Geo. H. Nettleton, Kansas City, Mo.
Treas.—Chas. Merriam, Boston, Mass.

FORT WAYNE, CINCINNATI & LOUISVILLE—Fort Wayne, Ind., to Connersville, Ind., 128.18 miles. Std. G.
Pres.—Elijah Smith, Boston, Mass.
Gen. Supt.—W. W. Worthington, Fort Wayne, Ind.
Sec. and Treas.—P. W. Smith, Boston, Mass.
Aud.—Charles Hoffman, Fort Wayne, Ind.
Gen. Pass. and Ticket Agt.—Robt. F. Kinnaird. Fort Wayne, Ind.

Gen. Freight Agt.—S. A. Wikel, Ft. Wayne, Ind.
Master of Trans.—W. B. Beamer, New Castle, Ind.
Master Mech.—Theodore H. Haberkorn, Fozt Wayne, Ind.
Master Car Builder—Wm. Knight, "
Road Master—John C. Wagner, "

FORT WAYNE & JACKSON—Jackson, Mich., to Fort Wayne, Ind., 107.72 miles.
Pres.—Sam. Sloan.
Sec. and Treas.—R. G. Rolston, New York City.

FORT WORTH & DENVER CITY—Fort Worth, Texas, to Canadian River, 385 miles. Std. G.
Pres.—Morgan Jones, Fort Worth, Texas.
Vice Pres.—T. W. Pearsall, New York City.
Gen. Supt. and Pur. Agt.—C. L. Frost, Fort Worth, Texas.
Gen. Pass. and Freight Agt.—C. L. Frost, Fort Worth, Texas.
Sec. and Aud.—W. A. Ross, "
Treas.—J. T. Granger, New York City.
Master Mech.—E. M. Alvord, Fort Worth, Tex.
Foreman of Loco. Repairs—M. R. Kiley, Fort Worth, Texas.
Foreman of Car Repairs—J. S. Butcher, Fort Worth, Texas,
Road Master—A. D. Goodenough, Decatur, Tex.

FRANKLIN & PITTSYLVANIA NARROW GAUGE—Pittsville, Va., to Rocky Mount, Va., 29.8 miles. G. 3 ft.
Pres.—Jno. S. Barbour, Alexandria, Va.
Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond, Va.
Treas.—Wm. H. Marbury, Alexandria, Va.
Sec.—L. Wilber Reid, "
Master Trans.—J Fisher, "
Supt. and Eng.—W. N. S. Dunn. "
Act. Gen. Freight Agt.—J. W. Drake, "
Mast. Mech.—J. E. Waddy, "
Aud.—Anthony McLean, "
Gen. Pass. Agt.—M. Slaughter, "
Gen. Traffic Mgr.—Sol. Haas, "
Asst. Gen. Freight and Pass. Agt.—J. S. B. Thompson, "

FRANKLIN & MEGANTIC—Miles, 1[illegible] G. 2 ft.
Pres.—S. W. Sargent, Boston, Mass.
Treas. and Gen. Mgr.—Philip H. Stubbs, Strong Me.
Gen. Pass. and Freight Agt.—W. [illegible] P Fogg, Strong, Me.
Pur. Agt.—V. B. Mead, Boston, Mass.
Mast. Mech. and Mast. Car Builder—W. H. Dyer, Strong, Me.
Mast. Car Painter—G. R. Winslow, "

FREDERICK & PENNSYLVANIA LINE—Kingsdale to Frederick, Md., 28.66 miles.
Pres.—Chas. E. Trail, Frederick City, Md
Sec.—Stephen W. White, Phila.

FREDERICKTON—(See New Brunswick.)

FREEHOLD & JAMESBURG AGRICULTURAL—Jamesburg to Sea Girt, N. J., 27.42 miles.
Pres.—I. S. Buckalew, Phil.

FREEHOLD & NEW YORK—Freehold, N.J., to Keyport, N. J., 14.6 miles. Std. G.
Pres.—Gen John S. Shultze, 91 Wall st., N.Y.
Sec., Treas., Supt., Gen. Pass., Ticket, Freight, Pur. Agt and Mast. Mech.—J E. Ralph, Keyport, Monmouth county, N. J.
Chief Eng.—Geo. T. Lape, Brooklyn, N.Y
Master Bar Builder and Painter—Charles H Snedeker, Freehold, N. J
Road Master—M. Cannon, Matawan, N. J.

FREMONT, ELKHORN & MISSOURI VALLEY—Fremont, Neb., to Valentine, Neb., 269.6 miles. Std. G.
Pres.—Marvin Hughitt, Chicago, Ill.
Vice Pres.—Albert Keep, "
Gen. Mgr.—W. B. Linsley, Missouri Valley, Ia.
Gen. Supt.—C. M. Lawler, "
Chief Eng.—J. E. Ainsworth, "
Sec. and Aud.—J. B. Redfield, Chicago, Ill.
Treas.—M. M. Kirkman, "
Gen. Pass. Agt.—J. R. Buchanan, Missouri Valley, Ia.
Gen. Freight Agt.—K. C. Morehouse, Missouri Valley, Ia.
Pur. Agt.—R. W. Hamer, Chicago, Ill.
Master Mech.—S. A. Teal, Missouri Valley, Ia.
Foreman of Car Repairs and Car Painter—W. H. Ramseyer, Missouri Valley, Ia.
Chief office and address, Cedar Rapids, Ia.

FULTON COUNTY—Havana, Ill., to Galesburg, Ill., 94 miles. G. 3 ft.
Pres. and Gen. Mgr.—S. H. Mallory, Lewiston, Ill.
Vice Pres.—Henry Phelps, Charlton, Ia.
Gen. Supt., Pass., Ticket, Freight and Pur. Agt.—A. C. Atherton, Lewiston, Ill.
Sec.—William J. Dycks, "
Treas.—Moses Turner, "
Aud.—Joseph D. Temple, "
Road Master—John Mac[illegible] "

G.

GAINESVILLE & DAHLONEGA—Gainesville, Ga., to Dahlonega, Ga., 26 miles. G. 3 ft.
Pres.—W. P. Price, Dahlonega, Ga.
Vice Pres.—A. C. Sanders, Gainesville, Ga.
Sec.—H. H. Perry, "

Treas.—D. E. Banks, Gainesville, Ga.
Chief Eng.—J. J. Gaillaird, "

GAINESVILLE, JEFFERSON & SOUTHERN—Gainesville, Ga., to Social Circle, Ga., 52 miles. G. 3 ft.
Gen. Mgr.—Jno. W Green, Augusta, Ga.
Aud.—Carlton Hillyer, "
Treas.—W T. Richards, "
Master of Trans.—S. A. Hemphill, "
Gen. Freight and Pass. Agt.—E. R. Dorsey, Augusta, Ga.
Master Mech.—Jno. S. Cook,
Road Master—H. Wilkens, "
Master Car Builder—T W. Preval, "

GALVESTON, HARRISBURG & SAN ANTONIO—Houston, Tex., to San Antonio, Tex., 937.9 miles. Std. G.
Pres. G. H. & S. A.—T W Pierce, 58 Sear's Buildings, Boston, and Mills' Building, 35 Wall st., New York.
Pres. T. & N. O. and La. W.—C. P. Huntington, 23 Broad st., New York.
Vice Pres. and Gen. Land Com. G. H. S. A.—H. B. Andrews, San Antonio, Tex.
Vice Pres. T & N. O. and La. W.—J. F. Crosby, Houston, Tex.
Gen. Mgr.—A. C. Hutchinson, New Orleans, La.
Supt.—E. G. Thompson, Houston, Tex.
Chief Eng.—James Converse, "
Sec. and Aud.—J. E. Fisher, "
Treas.—Chas. Babbidge, 58 Sear's Bldg., Boston.
Master of Trans.—C. W. Kouns, Houston, Tex.
Gen. Pass. and Ticket Agt.—T. W. Pierce, Jr. Houston, Tex.
Gen. Bag. Agt.—D. A. Sullivan, "
Gen. Freight Agt.—C. C. Gibbs, "
Supt. Mot. Power and Mach.—A. J. Stevens, Sacramento, Cal.
Div. Master Mechs.—D. C. Smith, Houston, Tex.; D. T. Davis, Harrisburg, Tex.; J. J. Ryan, San Antonio, Tex.; J. L. Bonner, El Paso, Tex.
Master Car Builder—Benj. Welch, Sacramento, Cal.
Foremen of Car Repairs—J. Alexander, Harrisburg, Tex.; H. C. Standish, El Paso, Tex.
Div. Supts.—W. Irwin, Houston Tex.; W. G. Van Vleck, San Antonio, Tex. J. Campbell, El Paso, Tex.
Div. Road Masters—J J. E. Lindberg, El Paso, Tex.; S. Darling, Houston, Tex.; Thos. Fitzpatrick, Sierra Blanca, Tex.; P McCabe, Marfa, Tex., L. Tracey, Sanderson, Tex.; L. Feely, Del Rio, Tex., J. P. Kelly, San Antonio, Tex., D. Richardson, Schulenburg, Tex.; J. H. Patterson, Houston, Tex.; Pat. Gaul, Houston, Tex.; Pat. Crowly, Welch's, La.; W. A. Kallaher, Woodville, Tex

GALVESTON, HOUSTON & HENDERSON—Galveston, Tex., to Houston, Tex.; 50 miles. Std. G.
Pres.—Wm. H. Harding, Galveston, Tex.
Vice Pres.—W. H. Newman, "
Sec. and Treas.—D. S. H. Smith, St. Louis, Mo.

GALVESTON, SABINE & ST. LOUIS—Galveston, Tex., to Red River, 450 miles. Std. G.
Pres.—John Durand, 77 Fitzhugh st., Rochester, N. Y.
Vice Pres., Gen. Mgr., etc—Brad Barner, Longview, Tex.
Gen. Supt.—C. H. Jewell, "
Chief Eng.—Peter Vanderwater, "
Sec.—S. H. Easton, "
Treas.—Sam Cundiff, "
Master Mech.—S. N. Wright, "
Supv.—John Moreland, "

GANANOQUE & GRAND TRUNK—(See Thousand Islands Railroad.)

GENESEE VALLEY—Hinsdale, N. Y. to Rochester, N. Y., 98.91 miles. Std. G.
Pres.—Archer N. Martin.
Sec.—Chas. E. Kimball. New York City.

GENEVA, ITHACA & SAYRE—(See Lehigh Valley.)

GENEVA & LYONS—(See Fall Brook Coal Co.)

GEORGES TRUNK & CUMBERLAND—Junc. with P. R. R. in Md., to New Detmold Mine, Md., 20 miles. Std. G.
Pres.—Henry Loveridge, 104 Broadway, New York.
Gen. Mgr.—James A. Millholland, Cumberland, Md.
Treas.—Gardner P. Lloyd, New York.

GEORGETOWN & LANES—Georgetown, S. C., to Lanes Depot, (N. E. R. R.), 37 miles. G. 5 ft.
Pres. and Gen. Mgr.—A. J. Twiggs, Augusta, Ga.
Sec. and Treas.—J. W. Clark, "
Supt.—C. E. Twiggs, Georgetown, S. C.
Gen. Pass. and Freight Agt.—T. M. Emerson, Wilmington, N. C.
Aud.—P. D. Cowan, Georgetown, S. C.

GEORGIA—Augusta to Atlanta, Ga., 305.7 miles. G. 5 ft.
Pres., Gen. Mgr. and Pur. Agt.—J. W. Green, Augusta, Ga.
Treas.—W. T. Richards, "
Aud.—Carlton Hillyer, "
Gen. Pass. and Freight Agt.—E. R. Dorsey, Augusta, Ga.
Fuel Agt.—J. B. Johnson, Atlanta, Ga.
Master Mech.—John S. Cook, Augusta, Ga.
Master Car Builder—T. M. Preval, "
Master Car Painter—J. E. Collins, "
Road Master—Hamilton Wilkins, "
Foreman Car Repairs—H. Daniels, "
Bridge Supv.—L. P. James, James, Ga.

GEORGIA PACIFIC—307 miles. G. 5 ft., Miss. Div., 3 ft.

Pres.—John W. Johnson, Birmington, Ala.
Vice Pres.—Geo. S. Scott, New York.
Gen. Supt. and Pur. Agt.—I. Y. Sage, Birmingham, Ala.
Chief Eng.—R. H. Temple, "
Sec.—A. B. Johnson, "
Treas.—W. G. Oakman, New York City.
Asst. Treas.—L. D. Aylett, Birmingham, Ala.
Aud.—H. C. Ansley, "
Traf. Mgr.—Sol. Haas, Richmond, Va.
Gen Pass., and Freight Agt.—L. S. Brown, Birmingham, Ala.
Master Mech.—W. T. Newman, Atlanta, Ga.
Div. Master Mechs.—W. J. Parrish, Columbus, Miss.; W. C. White, Greenville, Miss.
Foreman of Car Repairs—A. C. Jernegan, Atlanta, Ga.
Div. Supts.—G. S. Barnum, Columbus, Miss.; S. H. Purcell, Greenville, Miss.
Supvrs—W. W. Foreacre, Douglasville, Ga.; J. T. Alexandria, Eden, Ala.

GETTYSBURG & HARRISBURG—Hunters Run, Pa., to Gettysburg, Pa., 21.6 miles. Std. G.
Pres.—J. C. Fuller, Phila., Pa.
Supt.—Wm. H. Woodward, Pine Grove Furnace, Cumberland Co., Pa.
Chief Eng.—A. E. Lehman, Mount Holly Springs, Pa.
Sec. and Treas.—John M. Butler, 114 S. 3rd st., Phila., Pa.
Road Master—Jesse Kennedy, Mount Holly Springs, Pa.
Foreman of Loco. Repairs—John Christman, Pine Groves Furnace.
Foreman Car Repairs—John Dysert, Carlisle, Pa.
Supvr.—Guy G. Rodgers, "

GLASCOW BRANCH—Glascow Junc., to Glascow, Ky., 10.5 miles,
Pres.—H. C. Trigg.
Sec.—C. L. Hill, Glascow, Ky.

GLEN'S FALLS—Fort Edward, N. Y., to Caldwell, N. Y., 18.7 miles.
Pres.—Geo. H. Cramer.
Sec.—Geo. H. Perry, Troy, N. Y.

GOSHEN & DECKERTOWN—Goshen to Deckertown, N. Y., 11.64 miles.
Pres.—Jas. K. Houston, Florida, N. Y.
Sec. and Treas.—G. W. Murray, Goshen, N. Y.

GRAND ISLAND & ST. PAUL—(See Union Pacific.)

GRAND RAPIDS & INDIANA—Fort Wayne, Ind., to Bay View, Mich., 513.75 miles. Std. G.
Pres. and Gen. Mgr.—W. O. Hughart, Grand Rapids, Mich.
Vice Pres., Treas. and Pur. Agt.—W. R, Shelby, Grand Rapids, Mich.
Div. Supts.—P. S. O'Rourke, Ft. Wayne, Ind.; J. M. Methany, Grand Rapids, Mich.
Chief Eng.—M.M.Stimson, Grand Rapids, Mich.
Sec.—J. H. P. Hughart, Grand Rapids, Mich
Aud.—P. A. Gorham, "
Asst. Gen. Pass. Agt.—C. L. Lockwood, Grand Rapids, Mich.
Asst. Gen. Feight Agt.—C. E. Gill, Grand Rapids, Mich.
Gen. Bag. Agt.—E. Wygant, "
Master Mech.—S. D. Bradley, "
Foreman Painters—W. J. Russell, "
Fuel Agt.—John Hughart, "
Road Masters—John Chisholm, Cadillac, Mich.; Thomas Crane, Petoskey, Mich.; S. G. Scott, Kalamazoo, Mich.; W. B. Duyrea, Ridgeville, Ind.

GRAND RAPIDS, INDIANA & MACKINAW—Bay View, Mich., to Mackinaw City, Mich., 34.11 miles. Std. G.
Pres.—W. O. Hughart, Grand Rapids, Mich.
Sec.—J. H. P. Hughart, "
Treas.—W. R. Shelby, "

GRAND TOWER & CARBONDALE—Grand Tower, Ill., to Carbondale, Ill., 24.21 miles. Std. G.
Pres. and Supt.—J. C. Simpson, Carbondale, Ill.
Asst. Supt., Sec., Treas. and Aud.—J. D. Peters, Grand Tower, Ill.
Master Mech. and Road Master—N. Procunier, Grand Tower, Ill.

GRAND RIVER VALLEY—Rives Junc., Mich., to Grand Rapids, Mich., 84 miles.
Pres.—Amos Root, Jackson, Mich.
Sec. and Treas.—E. W. Barber, "

GRAND SOUTHERN—De Mille Junc., N. B., to St. Stephen, N. B., 82.5 miles. Std. G.
Pres.—Thomas Barry, St. George, N. B.
Gen. Mgr.—J. N. Greene, " "
Sec., Asst. Gen. Mgr. and Fuel Agt.—J. E. Lynett, St. George, N. B.
Gen. Supt.—F. W. Holt, " "
Treas.—Hugh Ludgate, " "
Supt. Mot. Power and Mach. and Mast. Car Bldr.—Thomas Logan, St. George, N. B.
Road Master—John Flinton, St. Stephen, "

GRAND TRUNK OF CANADA—2,920.5 m'ls. Std. G.
Pres.—Sir Henry W. Tyler, M. P., London, Eng.
Vice Pres.—Sir Charles L. Young, Bart., London, Eng.
Gen. Mgr.—Joseph Hickson, Montreal, Can.
Asst. Mgr.—Wm. Wainwright, " "
Supt.—W. J. Spicer, " "
Supt. Great West. Div.—Chas. Stiff, Hamilton, Can.
Chief Eng.—E. P. Hannaford, Montreal, "
Eng. Great West. Div.—Joseph Hobson, Hamilton, Can.
Asst. Engrs.—J. Y. Lloyd, Richmond, Can.; H. B. Hollingshead, Toronto, Can.; J. Brotherhood, Stratford, Can.; J. G. Macklin, Peterboro, Can.; G. Robinson, Stratford, Can.
Sec.—John B. Renton, London, Eng.

Treas.—Robt. Wright, Montreal, Can.
Acc'nt.—H W. Walker, " "
Aud.—T. B Hawson, " "
Traf. Mgr.—L. J. Seargeant, " "
Div. Traf. Mgr.—A. White, Peterboro, "
Gen. Pass. Agt.—Wm. Edgar, Montreal, "
Gen. Bag. Agt.—S. Symons, Montreal, Can.
Gen. Freight Agt.—John Porteous, " "
Gen. Storekpr.—John Taylor, " "
Storekpr. Great West. Div.—E. R. Baines, London, Can.
Fuel Agt.—D. McTaggart, Montreal, Can.
Fuel Agt. Great West. Div.—B. W. Waud, Hamilton, Can.
Mech. Supt.—Herbert Wallis, Montreal, "
Mech. Supt. Great West. Div.—C. K. Domville, Hamilton, Can.
Asst. Mech. Supts.—F. L. Wauklyn, Montreal, Can.; J. W. Harkom, Richmond, Can.; R. Boag, Stratford, Can.; J. D. Barnett, Port Hope, Can.; J. D. McIlwaine, London, Can.; A. H. Smith, Toronto, Can.
Mast. Car Bldr.—W. McWood, Montreal, Can.
Local Mgr.—E. Wragge, Toronto, "
Div. Supts.—T. H. Cooper, Montreal; R. Larmour, Stratford; A. Gregory, Island Pond, Vt.; J. M. Riddell, Stratford; W. B. Ferguson, Peterboro; J. E. Dawson, London, Can.; W. R. Tiffin, Palmerston, Can.

GRAND TRUNK, GEORGIAN BAY AND LAKE ERIE—Port Dover, Ont., to Wiarton (Georgian Bay), Ont., 194 miles. Std.G.
Pres.—David Tisdale, Simcoe, Ont.
Vice Pres.—S. S. Fuller, Stratford, "
Sec. and Treas.—J. C. Boyd, Simcoe, "
Chief Eng.—H. G. West, Wiarton, "

GREELY, SALT LAKE & PACIFIC—Greely, Col., to Stout, Col., 39.46 miles. Std. G.
Pres.—Sidney Dillon, New York City.
Vice Pres.—Willard Teller, Denver, Col.
Sec. and Treas.—J. W. Gannett, Omaha, Neb.

GREEN BAY, WINONA & ST. PAUL—Greenbay, Wis., to Marshland, Wis., 224.7 miles. Std. G.
Pres.—Samuel Sloan, New York.
Gen. Supt., Gen. Pass., Freight and Pur. Agt.—Timothy Case, Green Bay, Wis.
Asst. Gen. Supt.—Theo. G. Case, " "
Sec. and Treas.—Theo. Sturges, New York.
Asst. Treas.—F. W. Froemke, " "
Master Mech.—A. Fenwich, Ft. Howard, Wis.
Road Master—E. H. Mott, Green Bay, Wis.

GREEN COVE SPRINGS & MELROSE—Green Cove Springs to Melrose, 32 miles.
Pres.—J. C. Greely, Jacksonville, Fla.
Vice Pres. and Supt.—A. F. Vogelbach, Green Cove Springs, Fla.
Treas.—R. B. Canova, " "
Sec.—Robt. W. Davis, " "

GREENWICH AND JOHNSONVILLE—Greenwich, N. Y., to Johnsonville, N. Y., 14.65 miles. Std. G.
Pres.—Wm. D. Robertson, Greenwich, N. Y.
Vice Pres.—Horton Cottrell, " "
Gen. Mgr. and Aud.—J. H. Thompson, Greenwich, "
Sec.—Edmund H. Gibson, " "
Treas.—Chas. H. Van Ness, " "
Road Master—E. W. Cook, South Cambridge, "

GREENWOOD, LAURENCE & SPARTANBURG—(See Central).

GULF, COLORADO & SANTA FE—Galveston, Texas, to Lampasas, Texas, 536 miles. Std. G.
Pres.—George Sealy, Galveston, Tex.
Vice Pres.—R. S. Willis, " "
Gen. Mgr. and Chief Eng.—Webster Snyder, Galveston, Tex.
Asst. Gen. Mgr. and Aud.—Frank P. Killeen, Galveston, Tex.
Mast. of Trans.—J. N. Phillips, " "
Sec. and Treas.—Waters S. Davis, " "
Gen. Pass., Ticket and Freight Agt.—Oscar G. Murray, Galveston, Tex.
Gen. Bagg. Agt.—James H. Kelley, " "
Master Mech. and Mast. Car Bldr.—W. H. Martin, Galveston, Tex.
Road Master—John Mulvehill, " "
Pur. Agt.—Jno. W. Thorne, " "

GULF, WESTERN TEXAS & PACIFIC—Indianola, Texas, to Cuero, Texas, 66 miles. Std. G.
Pres., Gen. Supt., Treas., Gen. Pass., Ticket, Freight, Pur. and Fuel Agt.—M. D. Monserrate, Cuero, Tex.
Vice Pres.—F. S. Stockdale, "
Sec.—O. L. Threlkeld, "
Aud.—Stephen Minot, "
Master Mech. and Car Builder—James Mooney, Cuero, Tex.
Road Master—Jas. Beaumont, Victoria, "

H.

HAMILTON & NORTHWESTERN—(See Northern & Hamilton & Northwestern).

HAMILTON & ST. JOSEPH—Hamilton, Mo., to St. Joseph, Mo., 292.35 miles. Std. G.
Pres.—C. E. Perkins, Boston, Mass.
Vice Pres.—T. J. Potter, Chicago, Ill.
Gen. Mgr.—J. F. Barnard, St. Joseph, Mo.

Supt.—S. E. Crance, Hannibal, Mo.
Asst. Supt.—A. B. Barnard, Kansas City.

Chief Eng.—C. C. Chandler, St. Joseph, Mo.
Asst. Eng.—Chas. Petri, "
Sec.—W. J. Ladd, Boston.
Treas.—J. C, Peasley, Chicago.
Asst. Aud.—C. M. Carter, St. Joseph.
Gen. Pass. Agt.—A. C. Dawes, "
Gen. Bag. Agt.—M. B. Starring, "
Gen. Freight Agt.—E. J. Swords, "
Pur. Agt.—Wm. Irving, Chicago.
Fuel and Supply Agt.—J.W. Lane, Hannibal, Mo.
Gen. Mast. Mech.—N. J. Paradise, "
Div. Mast. Mech.—P. H. Peck, Berkfield, Mo.
Mast. Carpenter—A. J. Cartter, "
Foreman of Loco. Repairs—Thos. B. Johnson, Hannibal, Mo.
Foreman of Car Repairs—Chas. Coller, "
Foreman Car Paint's.—E. Bailey, "
Gen. Road Master—Jas. Murphy, Brookfield, Mo.

HANOVER JUNC., HANOVER & GETTYSBURG—Hanover Junc., Pa., to Gettysburg, 30 miles. Std. G.
Pres. and Pur. Agt.—A. W. Eichelberger, Hanover, Pa.
Gen. Supt.—H. D. Scott, "
Sec.—R. M. Wirt, "
Treas.—R. A. Eichelberger, "
Sec. and Treas. Bachman Valley—C.W. Forney, Hanover, Pa.
Aud.—R. Young, "
Gen. Pass. and Freight Agt.—Jos. Leib, "
Mast. Mech.—Jno. J. Bingly, "
Mast. Car Builder—Jas. Harthorn, "
Supt.—Jeo. Boblitz, "

HANOVER & YORK—Hanover to York, Pa., 19.11 miles.
Pres.—Jno. S. Young.
Treas.—J. H. Alleman, Hanover, Pa.

HARLEM RIVER & PORTCHESTER—New Rochelle to Harlem River, 11.8 miles.
Pres.—Geo. H. Watrous, New Haven, Conn.
Treas.—W. L. Squire.
Sec.—W. E. Barnett, New York.

HARRISBURG & POTOMAC—Bowmansdale, Pa., to Cleversburg Junc., Pa., 30 miles. Std. G.
Pres.—Cary W. Ahl, Boiling Springs, Pa.
Gen. Supt.—Robt. H Middleton, " "
Chief Eng.—F. H. Thomas, Shippensburg, Pa.
Sec.—Asbury Derland, Boiling Springs, Pa.
Treas.—Thos. W. Ahl, " "
Road Master—Wm. Wilson, Bowmansdale, Pa.

HARTFORD & CONNECTICUT VALLEY—Hartford, Conn., to Fenwick, Conn., 46.2 miles. Std. G.
Pres.—Geo. H. Watrous, New Haven, Conn.
Vice Pres.—Sam. Babcock, Hartford, Conn.
Supt.—O. M. Shepard, New Haven, Conn.
Sec., Treas. and Gen. Ticket Agt.—W.C. Brainard, Hartford, Conn.
Gen. Freight Agt.—Chas. Rockwell, New Haven, Conn.
Pur. Agt.—R. N. Dowd, "
Supt. Motive Power.—John Henry, New Haven.
Road Master—Thos. Sprague, Middleton, Conn.
Bridge Supervisor—H. D. Franklin, New Haven, Conn.

HARTFORD & CONNECTICUT WESTERN—Hartford, Conn., to Phinecliff, N.Y., 109.77 miles. Std. G.
Pres.—W. L. Gilbert, Winsted, Conn.
Vice Pres.—Fred. Miles, Lakeville, Conn.
Gen. Supt., Pur. and Freight Agt.—Jno. F. Jones, Hartford, Conn.
Sec.—E. R. Beardsley, "
Gen. Ticket Agt.—Walter Pearce, "
Road Master—Sam. Greer, West Winsted, Conn.

HASTINGS & GRAND ISLAND—Hastings, Neb., to Grand Island, 27 miles.
Pres.—Sidney Dillon, New York.
Vice Pres.—Thos. L. Kimbal,
Sec. and Treas.—J. W. Gannett, Omaha, Neb.

HELENA & JEFFESON COUNTY—Jefferson Junc. to Wikes, Mont., 20.1 miles.
Pres.—S. F. Hauser, Helena, Mont.
Vice Pres.—T. F. Oakes, St. Paul, Minn.
Sec. and Treas.—W. F. Sanders, Helena, Mont.

HENDERSON & OVERTON.
Pres.—Jay Gould, New York.
First Vice Pres.—R. S. Hayes, St. Louis.
Second Vice Pres.—T. W. Pearsall, New York.
Third Vice Pres.—H. M. Hoxie, St. Louis.
Treas. and Sec.—D. S. H. Smith, "
Asst. Treas. and Asst. Sec.—H. B. Henson, New York City.
Gen. Trans. Agt.—A.A. Talmage, St. Louis, Mo.
Gen. Supt.—Joseph Herrin, Palestine, Tex.
Gen Aud.—C. G. Warner, St. Louis.
Gen. Pass. Agt.—H. C. Townsend, "
Gen. Ticket Agt.—F. Chandler, "
Gen. Traffic Agt.—Geo. Olds, "
Mast. Mech.—O. A. Haynes, Palestine, Tex.
Supt. Car Depot—Jno. Hodge, "
Pur. Agt.—R. B. Lyle, St. Louis, Mo.

HERKIMER, NEWPORT & POLAND—Herkimer, N. Y., to Poland, N. Y., 16.73 miles. G. 3-6.
Pres. and Gen. Mgr.—E. M. Burns, Middleville, N. Y.
Vice Pres.—S. R. Millington, Poland, N. Y.
Gen. Supt. and Chief Eng.—Albert Wilber, Herkimer, N. Y.
Sec.—T. C. Merritt, Newport, N. Y.
Treas.—C. H. Thomas, Middleville, N. Y.
Foreman of Loco. Repairs—D. W. Snyder, Herkimer, N. Y.

HIGH BRIDGE—High Bridge, N. J., to Chester, N. J., 15.8 miles.
Pres.—Jno. Kean, Elizabeth, N. J.
Sec. and Treas.—J. W. Watson, New York.

HOLYOKE & WESTFIELD—Holyoke to Westfield, 17.22 miles.
Pres.—Chas. N. Yeamans, Westfield, Mass.

Supt.—S. B. Opdyke, Jr., New Haven, Conn.
Sec., Treas., Gen. Ticket Agt.—E. A. Ray, New Haven, Conn.
Gen. Freight Agt.—M. C. Parker, "
Mast. Mech.—Henry Fox, "
Eng. Maint. Way—S. P. Opdyke, "

HOOSAC TUNNEL & SARATOGA—(See Boston, Hoosac Tunnel & Western).

HOPKINS—Burlington, Ia., to Golconda, Ill., 300 miles. Std. G.

Pres.—James Walker Scottsville, Ill.
Vice Pres.—W. C. Shirley, Staunton, Ill.
Treas.—Milton McClure, Carlinville, Ill.
Sec.—L. C. Glessmer, "
Chief Eng.—W. F. Garis, "
Transfer Agt.—J. A. McClure, Jr. "

HOPKINTON—(See Milford and Woonsocket).

HOT SPRINGS—Malvern, Ark., to Hot Springs, Ark., 25 miles. G. 3 ft.
Pres., Sec. and Treas.—Joseph Reynolds, Chicago.
Supt.—J. A. Conger, Hot Springs, Ark.
Aud.—M. N. Pierce, "
Mast. Mech.—Leonard Finley, Malvern, Ark.
Road Master—George Worley, "

HOUSATONIC—Bridgeport, Conn., to State Line, Mass., 126.5 miles. Std. G.
Pres.—Hon. W. H. Barnum, Lime Rock, Conn.
Vice Pres. and Pur. Agt.—David S. Draper, Bridgeport, Conn.
Gen. Supt.—W. H. Yeomans, "
Asst. Gen. Supt.—C. W. Wood, "
Sec. and Treas.—C. K. Averill, "
Aud.—F. W. Hull, "
Gen. Ticket Agt.—H. D. Averill, "
Gen. Freight Agt.—H. C. Cogswell, "
Master Mech.—N. Slingland, Falls Village, Conn.
Foreman of Loco. Repairs—C. K. Booth. Falls Village, Conn.
Master Car Builder—J. J. Ferris, "
Master Car Painter—Perrie Mundry, "
Road Master—C. S. Lane, Great Barrington, Mass.

HOUSTON BELT—Around the City limits of Houston, Tex. 20 miles. G. Std. and 3 ft.
Pres.—R. H. Harris, Columbus, Tex.
Vice Pres.—J. R. Morris, Houston, Tex.
Sec. and Treas.—Jacob E. Fisher, "

HOUSTON, EAST & WEST TEXAS—Houston, Texas, to Mellinger, Texas. 155 miles. G. 3 ft.
Pres. and Pur. Agt.—Paul Bremond, Houston, Tex.
Vice Pres.—J. F. Crosby, "
Treas.—J. W. House, "
Sec.—Eugene Dargan, "
Gen. Mgr.—E. L. Bremond, "
Master of Trans.—A. C. Alexander, "
Master of Car Repairs—C. Shellawa, "
Gen. Supt. and Chief Eng.—Chas. Noblett, Houston, Tex.
Gen. Freight and Pass. Agt.—C. G. Fitze, "
Master Mach.—O. Dippey. "
Supt. of Bridges—J. Henning, "

HOUSTON & TEXAS CENTRAL—Houston, Texas, to Red River City, Texas. 521.75 miles. Std. G.
Recrs.—B. G. Clark and Chas. Dillingham, Houston, Tex.
Agt. for Recrs.—J. Waldo, "
Gen. Trans. Mgr.—A. H. Swanson, "
Treas.—E. W. Cave, "
Sec. and Aud.—H. Hall, "
Gen. Pass. and Ticket Agt.—A. Faulkner, Houston, Tex.
Gen. Freight Agt.—Dan. Ripley, "
Gen. Bag. Agt.—Robert Adair, "
Pur. Agt.—E. S. Larcher, 13 William st., N. Y.
Fuel Agt.—R. A. Allen, Hempstead, Tex.
Master Mech—L. C. Noble, Houston, Tex.
Master Car Builder—J. McGee, "
Master Car Painter—C. L. May, "
Eng. and Supt. First Div.—M. G. Howe, Houston, Tex.
Eng. and Supt. Second Div.—G. A. Quinlan, Corsicana, Tex.

HUMESTON & SHENANDOAH—Humeston, Ia., to Shenadoah, Ia. 112.33 miles. Std. G.
Pres.—W. W. Baldwin, Burlington, Ia.
Mgr. and Sec.—F. O. Wyatt, Chicago, Ill.
Supt—E. C. Murphy, Clarinda, Ia.
Treas.—Jas. F. Howe, St. Louis, Mo.
Aud. and Asst. Treas.—J. H. Ells, Clarinda, Ia.
Gen. Freight and Pass. Agt.—H. S. Nelson, Clarinda, Ia.
Master Mech.—George Ross, Shenandoah, Ia.
Road Master.—S. D. Purdy, Clarinda, Ia.

HUNTINGTON & BROAD TOP—Huntington, Pa., to Mount Dallas, Pa., 64,11 miles. Std. G.
Pres.—B. Andrews Knight, Phila.
Gen. Mgr.—Geo. F. Gage, Huntington, Pa.
Sec. and Treas.—J. P. Donaldson, Phila. Pa.
Pur. Agt—S. B. Knight, "
Master Mech.—Wm. Barkla Saxton, Pa.

I.

ILLINOIS CENTRAL—1,605.38 miles. Std. G.
Pres.—James C. Clarke, Chicago.
Vice Pres.—Stuyvesant Fish, 214 Broadway, New York.
Asst. to Pres.—John Dunn, Chicago.
Gen. Supt.—Edward T. Jeffery, "
Supt. Illinois and Iowa Div.—C. A. Beck, "
Sup. Southern Div.—C. M. Sheafe, New Orleans.

Acting Chief Eng.—Edward T. Jeffery, Chicago.
Sec.—L. A. Catlin, New York.
Asst. Sec.—W. J. Mauriac, Chicago.
Treas.—L. V. F. Bandolph, New York.
Asst. Treas.—Henry DeWolf, Chicago.
Local Treas.—R. S. Charles, New Orleans.
Gen. Aud.—J. C. Welling, Chicago.
Car Acc'nt.—E. M. Horton, "
Traffic Mgr.—J. F. Tucker, "
Gen. Pass. Agt.—A. H. Hanson, "
Asst. Gen. Pass. Agt.—J. W. Coleman, New Orleans.
Gen. Bag. Agt.—H. A. Winter, Chicago.
Gen. Freight Agt.—Horace Tucker, Illinois and Iowa Div., Chicago.
Asst. Gen. Freight Agt.—Wm. E. Keepers, Illinois and Iowa Div., Chicago.
Gen. Freight Agt.—D. B. Morey, Southern Div., New Orleans.
Pur. Agt.—Oran Ott, Chicago.
Supt. of Mach.—H. Schlacks, "
Asst. Supt. of Mach.—A. W. Sullivan, "
Div. Master Mech.—Wm. Renshaw, Chicago; J. B. Edams, Amboy, Ill.; T. W. Place, Waterloo, Ia.; W. B. McKenna, Clinton. Ill.; J. F. White, Water Valley, Miss.; E. D. Anderson, McComb City, Miss.
Sec.—Wm. J. Mauriac, New York.
Master Carp.—Wm. Harper, Chicago.
Div. Supts.—T. J. Hudson, Cairo, Ill.; J. C. Jacobs, Amboy, Ill.; Wm. Wilkinson, Springfield, Ill.; H. L. Frisbie, Pontiac, Ill.; J. G. Mann, Jackson, Tenn.; J. M. Turner, New Orleans,; J. B. Kemp, Aberdeen, Miss.
Asst. Div. Supts.—J.W.Seymore, Cairo, Ill.; D.S. Baily, Amboy, Ill.; F. W. Quimby, Dubuque, Ia.; H. W. Clarke, Jackson, Tenn.
Road Masters—J. M. Healy, Champaign, Ill.; T. C. Spalding, Chicago; F. R. Doty, Amboy, Ill.; J. Jacobs, Dubuque, Ia.; J. Butler, Pontiac, Ill,; J. H. McMillan, Jackson, Tenn.; J. J. Conway, New Orleans; E. J. Martin Aberdeen, Miss.
Supvs.—J. O'Conner, Cairo, Ill.; E. Donahue, Centralia, Ill.; Jos. O'Brien, Campaign, Ill.; C. Heckler, Chicago; Wm. Reed, Vandalia, Ill.; John O'Connor, Bloomington, Ill.; P. Ryan, Galena, Ill.; D. Coady, Clinton, Ill.; John Linehan, Chatsworth, Ill.; J. Sullivan, Dubuque, Ia.; J. T. Moran, Waterloo, Ia.; J. Holden, Ft. Dodge, Ia.; Chas Carney, Le Mars, Ia.; J. P. Smith, Jackson, Tenn.; W. L. Smith, Jackson, Tenn.; J. P. Cornelius, Durant, Miss.; John McGrath, Hazlehurst, Miss.; Benj. Erwin, McComb City, Miss.; T. S. Evans, Jackson, Miss.

ILLINOIS MIDLAND—Terre Haute, Ind., to Peoria, Ill., 173.13 miles. Std. G.
Recr., Gen. Mgr. and Pur. Agt.—D. H. Conklin, Decatur, Ill.
Aud.— Sam. C. Smith, "
Traffic Mgr.—A. E. Shader, Terre Haute, Ind.
Traveling Freight Agt.—Andrew Stevens, Decatur, Ill.
Foreman Shops—Frank Young, Paris, Ill.
Train Master and Supt. Telg.—O. E. Grady, Decatur, Ill.
Road Master—Peter Ford, Maroa, Ill.

ILLINOIS & ST. LOUIS—Belleville, Ill., to E. St. Louis, Ill., 25 miles. Std. G.
Pres.—Jos W. Branch, St. Louis, Mo.
Vice Pres.—Thos. McKissock, "
Gen. Supt.—C. H. Sharman "
Sec., Treas. and Gen. Pass. and Freight Agt.—P. T. Burke, St. Louis.
Master Mech.—D. J. Timlin, Belleville, Ill.
Master Car Builder—C. Rotha, East St. Louis, Ill.
Road Master—P. English, Belleville, Ill.

INDIANA & ILLINOIS SOUTHERN—Switz City, Ind., to Effingham, Ill., 91 miles. G. 3 ft.
Pres.—John B. Lyon, Chicago, Ill.
Vice Pres. and Gen Mgr.—Wm. C. Lyon, Robinson, Ill.
Chief Eng.—Chas. Seymour, Palestine, Ill.
Sec. and Treas.—Thos. B. Rice, Chicago.
Aud.—Chas. H. Steel, Robinson, Ill.
Master Mech.—J. S. Bickering, Palestine, Ill.
Road Master—Johnson Fitzpatrick, Switz City, Ind.

INDIANA, BLOOMINGTON & WESTERN—Peora, Ill., to Springfield, O., 697.3 miles. Std. G.
Pres —Austin Corbin, New York.
Vice Pres.—Alfred Sully, "
Gen. Mgr.—C. E. Henderson, Indianapolis, Ind.
Gen. Supt.—I. B. & W. H. Wilson. "
Eng. of Bridges and Buildings—M. M. Defrees. Indianapolis, Ind.
Gen. Counsel and Sec.—J. D. Campbell, N. Y.
Treas.—F. W. Dunton. "
Aud.—G. L. Dickenson, Indianapolis.
Gen. Ticket Agt.—H. M. Bronson, "
Gen. Bag. Agt.—John A. Glover, "
Gen. Freight Agt.—H. C. Diehl, "
Pur. Agt.—H. C. Norton, "
Master Mech.—B. Warren, "
Div. Master Mechs.—M. Fogarty, Urbana, O.; John King, Springfield, O.; Wm. A. Bell, Kansas, Ill.; J. S. Porter, Sandusky, O.
Train Master—P. A. Marsh, Indianapolis.
Road Master—John Sloan, "
Div. Road Masters—R. Baker, Urbana, Ill.; A. J. Diddle, Indianapolis; Thomas Holley, Springfield, O.; Pat. Lynch, Kenton, O.
Foreman Loco. Repairs—A. E. Tremp, Springfield, O.

INDIANA BLOCK COAL—Terre Haute Junc., Ind., to Brazil, Ind., 13 miles.
Pres.—H. H. Stevens, Boston, Mass.
Vice Pres.—Geo. H. Ball, Chicago, Ill.
Sec.—A. S. Dunham, "
Treas.—J. C. Calhoun, "
Gen. Supt.—O. S. Lyford, "
Aud.—H. A. Rubidge, "
Solicitor—Wm. Armstrong, "
Gen. Pass. and Ticket Agt.—W. Hill, "
Gen. Freight Agt.—Robt. Forsyth, "

Asst Gen. Freight Agt.—F. V. Davis, Chicago.
Master of Trans.—P. W. Drew, "
Master Mech.—Allen Cook, Danville, Ill.
Pur. Agt.—D. R. Patterson, Chicago, Ill.
Gen. Agt.—R. A. Campbell, Terre Haute, Ind.

Sec.and Treas.—W.N.Jackson, Indianapolis,Ind.
Aud.—W. P. Ijams, "
Gen. Bag. Agt.—Geo. S. Venn, "
Master Mech.—John Caffrey, "
Road Master—J. B. Witty, "

R. R. OFFICIALS are respectfully requested to notify us of any changes of organization, by sending circulars, or otherwise, as may be most convenient.—*Am. Eng. Register.*

INTERNATIONAL & GREAT NORTHERN—G. 4-8½. Miles operated, 891. No. of locomotives, 89; passenger cars, 34; freight and miscellaneous cars, 1,769.

Supt.—J. Herron, Palestine, Tex.
Asst. Supt.—H. Funnell, Houston, "
Asst. Sec.—W. R. Maxwell, Palestine, "
Master of Trans.—W. H. Boyd, " "
Asst. Gen. Pass. and Ticket Agt.—B. W. McCullough, Marshall, Tex.
Gen. Freight Agt.—W. H. Newman, Galveston, "
Fuel Agt.—E. Simmonds, Palestine, "
Supt. Motive Power and Mach.—O. A. Haynes, Marshall, Tex.
Mast. Mech.—W. S. Morris, Palestine, "
Supt. Car Dept.—H. H. Sessions, Marshall, "
Div. Master Car Builder—G. W. Shipman, Palestine, "
Master Car Painter—T. E. Lynch, " "
Train Masters—J. K. Painter, San Antonio, Tex.; T. Hume, Palestine, Tex.; A. Harding, Trinity, Tex.
Road Masters—Thomas Cronin, Palestine, Tex.; J. C. Howell, Tyler, Tex.; R. G. Scott, Troupe, Tex.; T. O'Connell, Trinity, Tex.; J. M. Jackson, Houston; J. L. Thomas, Willis, Tex.; A. B. Darden, Jewett, Tex.; C. Taliaferro, Rockwell, Tex.; W. P. Davis, Austin, Tex.; J. J. Burke, Cotulla, Tex.; J. L. Bonney, Houston, Tex.

Gen. Bag. Agt.—K. K. Bentley, "
Gen. Freight Agt.—Wm. Stewart, "
Pur. Agt—Wm. Mullins, "
Supt. Motive Power and Mach.—E. B. Wall, Columbus, O.
Master Mech.—Robert Curtis, "
Foreman of Loco. Repairs—W. C. Arp, Indianapolis, Ind.
Foreman of Car Repairs—J.Gouschall, "
Div. Supt.—J. J. Turner, "
Supervisors—S.B.Stillinger,Jas.King, "

INDIANAPOLIS UNION—G. 4-8½. Miles operated, 21.

Pres.—James McCrea, Indianapolis, Ind.
Vice Pres.and Gen.Mgr.—V.T.Malott, "
Supt.—D. F. Whitcomb, "
Chief Eng.—M. A. Zook, "

Road Master—W. E. Smith, Bury, Que.

INTERNATIONAL & GREAT NORTHERN—(See Missouri, Kansas & Texas).

IOWA CITY & WESTERN—

Pres.andCorp.Counsel—Joshua Tracy,Burlt'n, Ia.
Sec.—S. S. Dorwart, Cedar Rapids, Ia.
Treas.—H. H. Hollister, New York City.
Asst. Treas.—C. Stickney, Cedar Rapids, Ia.
Gen. Supt.—C. J. Ives, "
Solicitor—S. K. Tracy, Burlington.
Gen. Agt.—W. P. Brady, Cedar Rapids, Ia.
Supt.—R. Williams, "
Asst. Supt.—J. C. Fox, "
Chief Eng.—H. F. White, "
Aud.—J. C. Broekmit, "
Gen. Pass. Agt.—B. F. Mills, "

Acting Chief Eng.—Edward T. Jeffery, Chicago.
Sec.—L. A. Catlin, New York.
Asst. Sec.—W. J. Mauriac, Chicago.
Treas.—L. V. F. Bandolph, New York.
Asst. Treas.—Henry DeWolf, Chicago.

Train Master and Supt. Telg.—O. E. Grady, Decatur, Ill.
Road Master—Peter Ford, Maroa, Ill.

ILLINOIS & ST. LOUIS—Belleville, Ill., to E. St. Louis, Ill., 25 miles. Std. G.

John Lineham, Chatsworth, Ill.; J. Sullivan, Dubuque, Ia.; J. T. Moran, Waterloo, Ia.; J. Holden, Ft. Dodge, Ia.; Chas Carney, Le Mars, Ia.; J. P. Smith, Jackson, Tenn.; W. L. Smith, Jackson, Tenn.; J. P. Cornelius, Durant, Miss.; John McGrath, Hazlehurst, Miss.; Benj. Erwin, McComb City, Miss.; T. S. Evans, Jackson, Miss.

ILLINOIS MIDLAND—Terre Haute, Ind., to Peoria, Ill., 173.13 miles. Std. G.
Recr., Gen. Mgr. and Pur. Agt.—D. H. Conklin, Decatur, Ill.
Aud.— Sam. C. Smith, "
Traffic Mgr.—A. E. Shader, Terre Haute, Ind.
Traveling Freight Agt.—Andrew Stevens, Decatur, Ill.
Foreman Shops—Frank Young, Paris, Ill.

Road Master—John Sloan, "
Div. Road Masters—R. Baker, Urbana, Ill.; A. J. Diddle, Indianapolis; Thomas Holley, Springfield, O.; Pat. Lynch, Kenton, O.
Foreman Loco. Repairs—A. E. Tremp, Springfield, O.

INDIANA BLOCK COAL—Terre Haute Junc., Ind., to Brazil, Ind., 13 miles.
Pres.—H. H. Stevens, Boston, Mass.
Vice Pres.—Geo. H. Ball, Chicago, Ill.
Sec.—A. S. Dunham, "
Treas.—J. C. Calhoun, "
Gen. Supt.—O. S. Lyford, "
Aud.—H. A. Rubidge, "
Solicitor—Wm. Armstrong, "
Gen. Pass. and Ticket Agt.—W. Hill, "
Gen. Freight Agt.—Robt. Forsyth, "

Asst. Gen. Freight Agt.—F. V. Davis, Chicago.
Master of Trans.—P. W. Drew, "
Master Mech.—Allen Cook, Danville, Ill.
Pur. Agt.—D. R. Patterson, Chicago, Ill.
Gen. Agt.—R. A. Campbell, Terre Haute, Ind.

INDIANA, ILLINOIS & IOWA—North Judson, Ind., to Streator, Ill., 110 miles. Std. G.
Pres.—F. M. Drake, Centreville, Ia.
Vice Pres.—Thos. Thacher, New York.
Gen. Supt., Traffic Mgr. and Pur. Agt.—T. P. Shonk, Kankakee, Ill.
Sec & Treas.—Edward Fletcher, "
Asst. Sec.—G. D. L. Hulier, New York.
Aud.—H. P. Radley, Kankakee, Ill.
Gen. Bag. Agt.—B. N. Haslett, "
Supt. Motive Power and Mach.—R. C. Ackley, Kankakee, Ill.
Road Master—R. D. Gregg, "

INDIANAPOLIS, DECATUR & SPRINGFIELD—(See Indiana, Bloomington and Western).

INDIANAPOLIS & EVANSVILLE—G. 4-8½. Miles operated, 57.
Recr.—C. J. Hepburn, Evansville, Ind.
Supt.—D. J. Mackey, "
Master of Trans.—J. H. Hedden, "

INDIANAPOLIS & ST. LOUIS—(See Cleveland, Columbus, Cincinnati & Indianapolis).

INDIANAPOLIS & VINCENNES—Indianapolis to Vincennes, 116.63 miles. Std. G.
Pres.—Geo. B. Roberts, Philadelphia, Pa.
First Vice Pres.—J. N. McCullough, Pittsburgh, Pa.
Second Vice Pres.—Wm. Thaw, "
Third Vice Pres. and Compt.—Thomas D. Messler, Pittsburgh, Pa.
Mgr.—James McCrea, Columbus, O.
Chief Eng.—M. J. Becker, "
Eng. Maint. of Way—L. F. Loree, Indianapolis, Ind.
Sec.—S. B. Liggett, Pittsburgh.
Treas.—John E. Davidson, "
Aud.—J. P. Farley, "
Gen. Pass. and Ticket Agt.—E. A. Ford, "
Gen. Bag. Agt.—R. R. Bentley, "
Gen. Freight Agt.—Wm. Stewart, "
Pur. Agt—Wm. Mullins, "
Supt. Motive Power and Mach.—E. B. Wall, Columbus, O.
Master Mech.—Robert Curtis, "
Foreman of Loco. Repairs—W. C. Arp, Indianapolis, Ind.
Foreman of Car Repairs—J. Gouschall, "
Div. Supt.—J. J. Turner, "
Supervisors—S. B. Stillinger, Jas. King, "

INDIANAPOLIS UNION—G. 4-8½. Miles operated, 21.
Pres.—James McCrea, Indianapolis, Ind.
Vice Pres. and Gen. Mgr.—V. T. Malott, "
Supt.—D. F. Whitcomb, "
Chief Eng.—M. A. Zook, "
Sec. and Treas.—W. N. Jackson, Indianapolis, Ind.
Aud.—W. P. Ijams, "
Gen. Bag. Agt.—Geo. S. Venn, "
Master Mech.—John Caffrey, "
Road Master—J. B. Witty, "

INTERCOLONIAL—Point Levis, Que., to Halifax, N. S., 946.5 miles. Std. G.
Minister of Railways and Canals—Sir Charles Tupper, K. C. M. G., Ottawa, Can.
Depty. Min.—Thomas Trudeau, "
Sec. Dept. of Railways and Canals—A. P. Bradley, Ottawa.
Gen. Mgr.—Collingwood Schreiber, Ottawa.
Chief Supt.—David Pottinger, Moncton, N. B.
Chief Eng.—P. S. Archibald, "
Asst. Eng.—W. B. McKenzie, "
Treas.—Thomas Williams, "
Aud.—J. R. Bruce, "
Gen. Pass., Ticket and Bag. Agt.—Arthur Busby, Moncton, N. B.
Gen. Freight Agt.—George Taylor, "
Gen. Storekeeper—Thomas Cooke, "
Mech. Supt.—H. A. Whitney, "
Div. Master Mechs.—Wm. Johnston, Halifax, N. S.; C. Ouillette, Riviere du Loup, Que.
Shop Foreman of Loco. Repairs—John McHaffie, Moncton, N. B.
Foremen of Car Repairs—L. D. Shaffer, Moncton, N. B.; A. S. Coleman, Moncton, N. B.
Div. Supts.—J. J. Wallace, Truro, N. S.; James Price, Campbelton, N. B.; A. R. McDonald, Riviere du Loup, Que.
Road Masters—James Yeo, Riviere du Loup, Que.; Wm. Rainnie, Campbellton, N. B.; Wm. McLellan, New Castle, N. B.; John Starr Trites, Moncton, N. B.; Thomas O'Regan, Truro, N. S.

INTERNATIONAL—Lennoxville, Que., to Lake Megantic, 82 miles. Std. G.
Pres.—Hon. J. H. Pope, Ottawa, Ont.
Vice Pres.—Hon. E. T. Brooks, Sherbrooke, Que.
Gen. Supt.—D. E. McFee, "
Chief Eng.—A. F. Hilton, Agnes, Que.
Sec.—James Davidson, Sherbrooke, Que.
Cashier—A. F. Simpson, "
Master Mech.—Henry Ansell, "
Foreman of Car Repairs—W. Charest, "
Road Master—W. E. Smith, Burv, Que.

INTERNATIONAL & GREAT NORTHERN—(See Missouri, Kansas & Texas).

IOWA CITY & WESTERN—
Pres. and Corp. Counsel—Joshua Tracy, Burlt'n, Ia.
Sec.—S. S. Dorwart, Cedar Rapids, Ia.
Treas.—H. H. Hollister, New York City.
Asst. Treas.—C. Stickney, Cedar Rapids, Ia.
Gen. Supt.—C. J. Ives, "
Solicitor—S. K. Tracy, Burlington.
Gen. Agt.—W. P. Brady, Cedar Rapids, Ia.
Supt.—R. Williams, "
Asst. Supt.—J. C. Fox, "
Chief Eng.—H. F. White, "
Aud.—J. C. Broekmit, "
Gen. Pass. Agt.—B. F. Mills, "

Gen. Freight Agt.—John E. Utt, Cedar Rapids.
Master Mech.—R. W. Bushnell, "
Train Master—E. O. Soule, "
Train Dispatch—G. A. Goodell, "
Master Builder—J. L. Hardwick, "
Pur. Agt.—Theo. Stickney, "

IOWA FALLS & SIOUX CITY—Iowa Falls to Sioux City, 183.84 miles.
Pres.—Horace Williams.
Treas.—D. P. Kimball, Boston, Mass.
Officers in charge of operations, (see Illinois Central).

IRON—21 miles.
Pres.—E. E. Floyd, New York.
Gen. Mgr. and Pur. Agt.—C.C.Clark, Ironton, O.
Sec. and Treas.—W. L. Candler, Boston, Mass.
Aud.—B. S. Garvey, Ironton, O.
Foreman of Loco. Repairs—G. A. Myers, Ironton, O.

ITHACA, AUBURN & WESTERN—Freeville, N. Y., to Auburn, N. Y., 39.72 miles. Std. G.
Pres.—T. C. Platt, New York City.
Vice Pres.—Chas. N. Ross, Auburn, N. Y.
Mang. Director—E. P. Wilbur, Bethlehem, Pa.
Sec.—Jno. N. Knapp, Auburn, N. Y.
Treas.—C. L. Rich, "
Chief Eng.—E. F. Swartz, "
Supt.—Jas. G. Knapp, "
Master Car Repairs—H. Mooney "
Acting Freight and Ticket Agt.—H. L. Rich, Auburn, N. Y.
Master of Mach.—J. White, "
Traffic Mgr.—Jno. Taylor, Mauch Chunk.
Road Master—E. R. Mills, Moravia, N. Y.

J.

JACKSON, LANSING & SAGINAW—Jackson, Mich., to the Straits of Mackinac, Mich., 295.1 miles.
Pres.—H. A. Hayden.
Sec.—O. M. Barnes, Jackson, Mich.
Treas.—W. D. Thompson.

JACKSONVILLE, ST. AUGUSTINE & HALIFAX RIVER—36 miles. G. 3ft.
Pres.—W. Jerome Green, Utica, N. Y.
Vice Pres.—Chas. Green, "
Gen. Mgr. and Treas.—W. L. Crawford, St. Augustine, Fla.
Gen. Supt.—H. S. Ming, Jacksonville, Fla.
Sec.—J. N. Hayes, Utica, N. Y.
Gen. Pass. and Freight Agt.—G. D. Ackerly, Jacksonville, Fla.
Road Master—R. Nesbit, St. Augustine, Fla.

JACKSONVILLE & SOUTHERN—Jacksonville, Ill., to Smithboro, Ill., 111.9 miles. Std. G.
Pres.—Wm. S. Hook, Jacksonville, Ill.
Gen. Sup. Aud., Gen. Pass., Ticket, Freight and Pur. Agt.—E. S. Greenleaf, Jacksonville, Ill.
Sec. and Treas.—M. P. Ayers, "
Master Mech.—Ira Petrie, "
Road Master—George H. Dunivan "

JACKSONVILLE, TANCPA & KEY WEST—Jacksonville, Fla., to Palatka, Fla., 56 miles. G. 5 ft.
Pres.—Geo. M. Bartholomew, Hartford, Conn.
Vice Pres.—A. B. Mason, New York.
Gen. Mgr. and Pur. Agt.—G. W. Bentley, Jacksonville, Fla.
Supt.—M. R. Moran, "
Chief Eng.—S. B. Carter, "
Sec.—L. C. Denning, "
Treas.—C. C. Denning, New York.
Gen. Pass., Freight and Fuel Agt.—M. R. Moran, Jacksonville, Fla.
Master Mech.—C. J. Richards, "
Master Car Builder—F.B.Hurlburt, "
Road Master—D. McCarthy, "

JAMESTOWN & FRANKLIN—Jamestown, Pa., to Oil City, Pa., 50.91 miles.
Pres.—Jas. Miles, Girard, Pa.
Treas.—R. P. Cann, Stoneboro, Pa.

JAMESTOWN & NORTHERN—Jamestown to Northern Boundary of Dakota, 72.5 miles.
Pres.—Geo. H. Adams, New York.
Sec. and Treas.—Sidney Starbuck, "

JAMESVILLE & WASHINGTON—Jamesville to Washington, N.C., 22 miles. Std.G.
Lessee and Gen. Mgr.—Wm. Bissell, Jamesville, N. C.
Aud.—J. E. Lawrence, "
Road Master—J. W. Roberson, "

JEFFERSON—Lanesboro, Pa., to Carbondale, Pa., 44.87 miles. Std. G. and 6 ft.
Pres.—Samuel Hines, Reaidng Pa.
Sec.—A. R. MacDonough, New York.
Treas.—B. W. Spencer, "
Prin. office and address, Scranton, Pa.

JEFFERSONVILLE, MADISON & INDIANAPOLIS—Louisville, Ky., to Indianapolis, Ind., 224.9 miles. Std. G.
Pres.—George B. Roberts, Phila., Pa.
First Vice Pres.—J. N. McCullough, Pittsburgh, Pa.
Second Vice Pres.—Wm. Thaw, "

Third Vice Pres. and Compt.—Thomas D. Messler, Pittsburgh, Pa.
Mgr.—James McCrea, Columbus, O.
Supt.—E. W. McKenna, Louisville, Ky.
Chief Eng.—M. J. Becker, Columbus, O.
Aud.—Geo. S. McKiernan, Louisville, Ky.
Treas.—John E. Davidson, Pittsburgh, Pa.
Gen. Pass. and Ticket Agt.—E. A. Ford, Pittsburgh, Pa.
Asst. Pass Agt.—H. R. Dering, Louisville, Ky.
Gen. Baggage Agt.—R. R. Bentley, Pittsburgh, Pa.
Gen. Freight Agt.—R. W. Geiger, Louisville, Ky.
Pur. Agt.—W. Mullins, Pittsburgh, Pa.
Supt. Motive Power—E. B. Wall, Columbus, O.
Master Mech.—W. Swanston, Jeffersonville, Ind.
Foreman of Car Repairs—Edward Austin, Jeffersonville, Ind.
Master Car Painter—H. Thomas, "
Train Master—J. B. Safford, Columbus, Ind.
Eng. Maint. of Way—J. A. Weiss, "
Asst. Eng. Maint. of Way—J. W. Clarke, Columbus, Ind.
Supvrs.—M. Gilhooley, Columbus, Ind.; S. E. Tingle, Columbus; M. Purcell, Columbus, Ind.

JERSEY CITY & BERGEN—Jersey City, N. J., to Bergen Pt., Greenville, Hudson, 22 miles. G. 4 ft. 10 in.
Pres.—Chas. B. Thurston, Jersey City, N. J.
Treas.—Chas. B. Place, New York City.
Sec.—L. Zabriskie, Jersey City, N. J.
Supt.—T. M. Sayre, "

JERSEY SHORE, PINE CREEK & BUFFALO—Stokesdale, Pa., to Newberry Junc.
Pres.—Henry Sherwood, Wellsboro, Pa.
Vice Pres.—Geo. J. Magee, Watkins, N. Y.
Treas.—Cornelius Vanderbilt, New York City.
Sec.—Wm. Howell, Jr., Antrim, Pa.
Chief Eng.—Anton Hardt Wellsboro, Pa.

JOLIET & CHICAGO—Joliet, Ill., to Chicago, Ill., 37.2 miles.
Pres.—Jno. Crerar.
Treas.—Chas. H. Foster, Chicago, Ill.

JOLIET & NORTHERN INDIANA—Lake Ind., to Joliet, Ill., 45 miles.
Pres —Wm. H. Vanderbilt, New York.
Treas.—Cornelius Vanderbilt, "

JUNCTION & BREAKWATER—Harrington to Lewes, Del., 45 miles.
Pres. N. L. McCready, New York.
Treas.—D. H. Houston, Lewes, Del.

JUNCTION CITY & FORT KEARNEY—Junction City, Kan., to Concordia, Kan., 70.45 miles.
Pres.—Sidney Dillon.
Vice Pres.—Elisha Atkins.
Sec. and Treas.—Henry MacFarland, Boston, Mass.
Asst. Sec.—H. P. Dillon, Topeka, Kan.

K.

KALAMAZOO, ALLEGAN & GRAND RAPIDS—Kalamazoo to Grand Rapids, Mich., 58.42 miles.
Pres.—J. H. Wade, Girard, Pa.
Sec.—R. P. Cann, Stoneboro, Pa.

KALAMAZOO & SOUTH HAVEN—Kalamazoo to South Haven, Mich., 40 miles.
Pres.—Ashley Pond.
Treas.—D. A. Waterman, Kalamazoo, Mich.

KANKAKEE & SENECA—Kankakee, Ill., to Seneca, Ill., 42.3 miles. Std. G.
Pres.—T. P. Bonfield, Kankakee.
Sec. and Treas.—E. F. Osborn, Cincinnati, O.
Chief Eng.—T. O. Morris, Indianapolis, Ind.
Gen. Freight Agt.—H. J. Page, Cincinnati, O.
Gen. Ticket Agt.—Jno. Egan, "
Gen. Supt.—J. W. Sherwood, Indianapolis, Ind.
Asst. Gen. Freight Agts.—W. C. Hobbs, E. F. Kelley, Chicago, Ill.

KANKAKEE & SOUTHWESTERN—Otto, Ill., to Normall Junc., Ill.
Pres.—Jas. C. Clark.
Treas.—J. C. Willing, Chicago, Ill.

KANSAS CENTRAL—Leavenworth, Kan., to Miltonville, Kan., 168 5 miles.
Pres.—Sidney Dillon, New York City.
Sec. and Treas.—Henry McFarland, Boston, Mass.

KANSAS CITY, FORT SCOTT & GULF—Kansas City to Baxter Springs, Kan., 388.66 miles. Std. G.
Pres.—H. H. Hunnewell, Boston, Mass.
Gen. Mgr.—Geo. H. Nettleton, Kansas City, Mo.
Gen. Supt.—L. W. Towne, "
Chief Eng.—S. W. Clapp, Ft. Scott, Kan.
Sec. and Treas.—Chas. Merriman, Boston, Mass.
Compt.—J. S. Ford, Kansas City.
Gen. Pass. and Ticket Agt.—J. E. Lockwood, Kansas City.
Gen. Baggage Agt.—F. E. Nettleton, "
Gen. Freight Agt.—M. L. Sargent, "
Pur. and Fuel Agt.—H. P. Jacques, "
Supt. Motive Power and Mach.—J. S. McCrum, Kansas City.
Master Car Builder—A. N. Montier, "
Div. Supts.—P. F. Clinton, Kansas City, Mo.; J. R. Mills, Cherokee, Kan.; H. W. Diggins, Springfield, Mo.; J. H. Sullivan, Memphis, Tenn.

Road Masters—L. K. Spafford, Kansas City, Mo.; J. E. Beck, Jonesboro, Ark.

KANSAS CITY, ST. LOUIS & CHICAGO—Mexico, Mo., to Kansas City, Mo., 162.62 miles.
Pres.—J. J. Mitchell.
Sec.—H. W. Phelps, St. Louis, Mo.

KANSAS CITY, SPRINGFIELD & MEMPHIS—Springfield, Mo., to Memphis, Tenn., 284.42 miles. Std. G.
Pres. and Chief Eng.—George H. Nettleton, Kansas City, Mo.
Treas.—Chas. Merriam, Boston, Mass.
Sec.—J. S. Ford, Kansas City.

KANSAS CITY & SOUTHERN—Kansas City, Mo., to Brush Creek, Mo., 15 miles. Std. G.
Pres. and Gen. Mgr.—Wm. Bailey, St. Louis, Mo.
Asst. Gen. Mgr.—F. M. Green, Clinton, Mo.
Sec.—Amos Tenney, St. Louis, Mo.
Supt.—David Stillinger, Clinton, Mo.
Prin. office and address, Kansas City.

KANSAS & GULF SHORT LINE—Tyler, Tex., to 5 miles So. of Alto, 63 miles. G. 3 ft.
Pres.—W. S. Herndon, Tyler, Tex.
Vice Pres.—Hugh Stevenson, New York City.
Treas.—T. R. Bonner, Tyler, Tex.
Chief Eng.—E. H. Wells, " "
Sec.—B. B. Cain, " "
Gen. Mgr.—Eli Culverhous, " "
Financial and Pur. Agt.—V. K. Stephenson, New York.

KANSAS CITY, ST. JOSEPH & COUNCIL BLUFFS.—323 miles. Std. G.
Pres.—C. E. Perkins, Burlington, Ia.
Vice Pres.—T. J. Potter, Chicago, Ill.
Gen. Mgr.—J. F. Barnard, St. Joseph, Mo.
Supt.—J. R. Hardy, " "
Asst. Supts.—D. H. Winton, St. Joseph, Mo.; A. B. Barnard, Kansas City, Mo.
Cheif Eng.—C. C. Chandler, St. Joseph, Mo.
Sec.—A. G. Stanwood, Boston, Mass.
Treas.—J. C. Peasley, Chicago, Ill.
Asst. Treas.—W. J. Hilton, St. Joseph.
Aud.—J. L. Lathrop, Chicago.
Asst. Aud.—C. M. Carter, St. Joseph.
Gen. Pass. and Ticket Agt.—A. C. Dawes, St. Joseph.
Gen. Bag. Agt.—M. B. Starring, Chicago.
Gen. Freight Agt.—E. J. Swords, St. Joseph.
Acting Pur. Agt.—G. W. Stevens, Chicago.
Supt. Telg.—G. M. Hohl, St. Joseph.
Mast. Mech. and Car Builder—F. A. Chase, St. Joseph.
Foremen of Loco. Reprs.—L. E. Bridenstein, Council Bluffs, Ia.; Joseph Richardson, Kansas City, Mo.; E. M. Crandall, St. Joseph.
Foreman of Car Dept.—Thos. Aylesbury, St. Joseph.
Foreman of Car Painters—C. F. Harral, "
Supt. B. and B.—L. H. Morse, "
Gen. Road Master—Jos. Hayward, "
Asst. Road Masters—D. Bartlett, St. Joseph; A. Wortley, St. Joseph; P. Sharkey, Council Bluffs, Ia.

KANSAS & MISSOURI—26.18 miles.
Pres.—Geo. H. Nettleton, Kansas City, Mo.
Treas.—Chas. Merriam, Boston, Mass.

KENDALL & ELDRED—Eldred, Pa., to Tarport, Pa., 15 miles. G. 3 ft.
Sec. and Treas.—F. S. Buell, Buffalo, N. Y.

KENT NORTHERN—Richibucto, N. B., to Kent Junc., 27 miles. Std. G.
Mgr.—Jno. C. Brown, Richibucto, N. B.
Supt.—E. E. Phair. " "
Eng.—W. Brown, " "
Aud. and Agt.—D. W. Brown, " "

KENT COUNTY, SMYRNA & DELAWARE BAY—(See Baltimore and Delaware Bay.)

KENTUCKEY CENTRAL—Covington, Ky., to Livingston, Ky., 253.71 miles. Std. G.
Pres.—B. S. Cunningham, Cincinnati, O.
Vice Pres.—John Echols, Louisville, Ky.
Gen. Supt.—G. W. Bender, Covington, Ky.
Chief. Eng.—M. L. Lum, Winchester, Ky.
Asst. Chief Eng.—Geo. W. Lewis, Covington, Ky.
Sec and Treas.—Chas. H. Bronson, " "
Train Master—L. A. Boyd, Paris, Ky.
Gen. Pass. and Freight Agt.—Chas. L. Brown, Covington, Ky.
Mast. Mech.—A. H. Watts, " "
Mast. Car Builder—J. L. Hackathorn, " "
Road Master—Geo. Collier, Paris, Ky.

KENTUCKY & SOUTH ATLANTIC—Mount Sterling, Ky., to Rothwells, Ky., 19.6 miles. G. 3 ft.
Pres.—E. Zimmerman, Cincinnati, O.
Vice Pres.—C. W. West, Cynthiana, Ky.
Gen. Supt., Pur. Agt. and Road Master—George B. Harper, Mt. Sterling, Ky.
Chief Eng.—M. L. Lum, Winchester, Ky.
Sec. and Aud.—J. M. Kelley, Mt. Sterling, Ky.
Gen. Pass. and Freight Agt.—G. Brashears, Cincinnati.
Master Mech.—Walter W. Layman, Mt. Sterling, Ky.
Foreman of Car Repairs—J. Coppage, Mt. Sterling, Ky.

KEOKUK & DES MOINES—Keokuk to Des Moines, Ia., 162.2 miles.
First Vice Pres.—David Downs, New York.
Second Vice Pres. and Gen. Supt.—A. Kimball, Chicago, Ill.
Sec. and Treas.—F. H. Tows, New York.
Asst. Gen. Supt.—H. F. Royce, Davenport, Ia.
Pur. Agt.—F. A. March, Chicago, Ill.
Aud.—C. F. Jilson, "
Local Treas.—W. G. Purdy, "
Supt. Ia. and R. & D. M. Div.—J. Givin, Keokuk, Ill.

Supt. S. W. Div.—G. F. Walker, Trenton, Mo.
Supt. Ill. Div.—R. H. Chamberlain, Chicago, Ill.
Ticket Aud.—Arthur Temple, "
Freight Agt.—G. H. Crosby, "
Gen. Ticket and Pass. Agt.—E. St. John, Chicago, Ill.
Freight Traffic Mgr.—Jno. T. Sanford, "
Gen. Freight Agt.—Wm. M. Sage, "
Asst. Gen. Freight Agts.—T. P. Wolfe, D. Atwood, Chicago, Ill.
Gen. Solic.—Thos. F. Withrow, Chicago, Ill.
Master of Mach.—F. B. Twombly, Newton, Mo.
Master Car Builder—B. W. Verbruyck, Chicago.
Reg. of Stock—Corn Exchange Bank, New York.
Land Com.—J. L. Drew, Davenport, Ia.
Asst. Gen. Pass. Agt.—W. A. Strong, Chicago, Ill.
Gen. Bag. Agt.—J. D. Marston, "

KEOKUK & NORTHWESTERN—Keokuk, Ia., to St. Peters, Mo., 215.37 miles. Std. G.
Pres.—W. W. Baldwin, Burlington, Ia.
Vice Pres. and Gen. Mgr.—T. J. Potter, Burlington, Ia.
Treas.—J. C. Peasley, Chicago, Ill.
Aud.—Jno. L. Lathrop, "
Sec.—Howard Elliot, Keokuk, Ia.
Gen. Supt.—R. Law, "
Chief Eng.—H. A. Sumner, "
Gen. Ticket and Freight Agt.—J. H. Best, Jr., Keokuk, Ia.
Master Mech.—W. H. Bartlett, "
Road Master—F. E. Sawyer, "
Supt. of Bridges—S. F. Clapp, "
Pur. Agt.—Wm. Irving, "

KINGSTON & PEMBROKE — Kingston, Ont., to Pembroke, Ont., 140 miles. Std. G.
Pres.—C. F. Gildersleeve, Kingston, Can.
Vice Pres.—I. D. Flower, New York.
Gen. Supt.—B. W. Folger, Kingston, Can.
Asst. Gen. Supt.—I. H. Taylor, "
Chief Eng.—T. W. Nash, "
Sec. and Treas.—Geo. Osborne, "
Gen. Pass. and Freight Agt.—J. Swift, "
Gen. Ticket Agt.—F. Conway, "
Div. Supts.—B. W. Folger and J. H. Taylor, Kingston.
Road Master—Wm. Erwin, "

KINZUA—Intersection Bradford R. R., to Kinzua, Pa., 14 miles. G. 3 ft.
Sec. and Treas.—F. S. Buell, Buffalo, N. Y.

KNOX & LINCOLN—Bath, Me., to Rockland, Me., 49 miles. Std. G.
Pres.—John T. Berry, Rockland, Me.
Supt., Gen. Pass., Freight and Pur. Agt.—C. A. Coombs, Bath, Me.
Sec.—Edmund Wilson, Thomaston, Me.
Treas.—F. H. Low, Bath, Me.
Master Mech.—William A. Fields, "
Master Car Builder—Charles L. Turner, "
Road Master—William B. Ludwig, Waldoboro,

KNOXVILLE & AUGUSTA — Knoxville, Ky., to Maryville, Ky., 16.82 miles. G. 5 ft.
Pres., Gen. Mgr. and Pur. Agt—R. N. Hood, Knoxville, Tenn.
Gen. Supt.—J. M. Hood, Marysville, Tenn.
Sec.—Skipwith Wilmer, Baltimore, Md.
Treas., Gen. Pass. and Freight Agt.—Chas. Bunger, Knoxville.
Master Mech.—James Pickens, Marysville, Tenn.
Chief Eng.—M. Nicholson, Knoxville, Tenn.
Aud.—Jno. Hood, "
Road Master—A. J. Weaver, Flenniken, Tenn.

L.

LACKAWANNA & PITTSBURGH—Lakawanna Junc., N. Y., to Pittsburgh Junc., N. Y., 299.86 miles. Std. G.
Pres.—Archer N. Martin, New York.
First Vice Pres.—Frank S. Smith, Angelica, N.Y.
Second Vice Pres.—Frank Jenkins, "
Sec. and Treas—Chas. E. Kimball, New York.
Prin. office and address, Friendship, N. Y.

LACKAWANNA & SUSQUEHANNA—(See Del. & Hudson Canal Co.)

LA CLEDE & CREVE CŒUR LAKE—(See Missouri Pacific.)

LAKE CHAMPLAIN & ST. LAWRENCE—Stanbridge to St. Guillaume, Que., 63 miles. Std. G.
Pres. and Gen. Mgr.—Duncan McIntyre, Montreal, Que.
Gen. Mgr.—T. A. McKinnon, Montreal, Que.
Sec. and Treas.—A. B. Chaffee.
Supt.—Hugh McDiarmid, Richford, Vt.
Road Master—G. Shanks, Montreal, Que.

LAKE ERIE & WESTERN—Sandusky, O., to Bloomington, Ill., 386.91 miles. Std. G.
Pres.—C. R. Cummings, 208 First National Bank, Chicago, Ill.
Vice Pres.—J. H. Cheney, Bloomington, Ill.
Gen. Supt.—D. S. Hill, Bloomington
Chief Eng.—T. H. Perry, "
Sec. and Treas.—B. G. Mitchell, Metropolitan Nat. Bank, New York
Asst. Treas.—A. D. Thomas, Bloomington, Ill.
Aud.—A. J. Castater, "
Gen. Pass., Ticket and Bag. Agt.—G. W. Smith. Bloomington.
Gen. Freight Agt.—W. S. Weed, "
Pur. and Fuel Agt.—T. H. Perry. "

Supt. Motive Power and Mach.—H. L. Cooper, Lima, O.
Foremen of Loco. Repairs—L. Brooksmith, Lafayette, Ind.; M. Soper, Sandusky, O.; W. H. Fultz, Bloomington, Ill.
Road Masters—W. W. Wentz, Lafayette, Ind.; F. X. Galarneau, Lima, O.
Supv. Bridges and Buildings—F. F. Hagadorn, Muncie, Ind.

LAKE GEORGE & MUSKEGON RIVER—G. 4-8½. Miles operated, 20. A lumber road exclusively.
Gen. Mgr.—W. S. Gerrish, Muskegon, Mich.

LAKE SHORE & MICHIGAN SOUHERN—Buffalo, N. Y., to Chicago, Ill., 1.339.94 miles. Std. G.
Chairman of Board of Dirs.—Wm. C. Vanderbilt, New York.
Pres. and Gen. Mgr.—John Newell, Cleveland, O.
Vice Pres., Treas. and Sec.—E. D. Worcester, New York.
Asst. Treas. and Sec.—N. Bartlett, Cleveland, O.
Asst. Gen. Mgr.—Addison Hills, "
Gen. Supt.—P. P. Wright "
Div. Supts.—C. P. Crouch, Cleveland, O.; Thos. Flesher, Jr., Cleveland, O.; J. E. Curtis, Toledo, O.; A. M. Tucker, Elkhart, Ind.; A. G. Amsden, Chicago; G. H. McIntyre, Youngstown, O.; T. J. Charlesworth, Detroit, Mich.; W. H. Canniff, Hillsdale, Mich.; M. E. Wattles, Kalamazoo, Mich.
Pur. Agt.—L. H. Higgins, Cleveland, O.
Aud.—C. P. Leland, "
Chief Eng.—L. H. Clarke, "
Eng. Lake Shore Div.—I. C. Brewer, "
Eng. Mich. South. Div.—Benj. Reece, "
Coal Supply Agt.—J. N. Brewer, "
Supt. of Bridges—G. M. Reid, Cleveland, O.
Gen. Freight Agt.—George H. Vaillant, "
Gen. Pass. Agt.—W. P. Johnson, Chicago.
Gen. Ticket Agt.—J. W. Cary, Cleveland, O.
Gen. Bag. Agt.—J. T. Freeman, "
Supt. of Motive Power—G. W. Stevens, "
Master Mechs.—J. S. Graham, Buffalo, N. Y.; L. O. Gassett, Cleveland, O.; J. M. Sanborn, Norwalk, O.
Gen. Master Car Builder—John Kirby, Cleveland, O.
Master Car Builders—A. C. Robson, Buffalo, N. Y.; J. Withycomb, Cleveland, O.; W. Smith, Norwalk, O.; F. O. Bray, Adrian, Mich.
Road Masters—W. H. Courtenay, Erie, Pa; O. D. Richards, Youngstown, O.; H. H. Houghton, Elyria, O.; Geo. B. Houghton, Norwalk, O.; T. F. Whitelsey, Englewood, Ill.; J. Pool, La Porte, Ind.; J. Anson, Toledo, O.; John Stuart, Coldwater, Mich.; Geo. Storrs, Kalamazoo, Mich.; G. W. Merrill, Hillsdale, Mich.; Chas. Stein, Hillsdale, Mich.; H. J. Corbus, Adrian, Mich.; E. H. Place, Monroe, Mich.

LAKE SIMCOE JUNC.—Stouffville, Ont., to Jackson's Pt., 26.5 miles.
Pres.—J. N. Blake, Toronto, Ont.
Vice Pres.—David Tisdale, Simcoe, Ont.
Sec.—J. R. Rouchier, Georgina, Ont.

LAKE TAHOE—Glenbrooke, Nev., to Summit, Nev., 10 miles. G. 3 ft.
Pres.—D. L. Bliss, Carson City, Nev
Gen. Supt.—J. T. Rodgers, Glenbrook, Douglas County, Nev.
Mast. Mech.—T. Morrin, Glenbrook, Nev.
Foreman of Car Repairs—A. G. O'Brine, Glenbrook, Nev.
Road Master—P. Mansfield, "

LAMOILLE VALLEY EXTENSION—Rouse's Pt., N. Y., to Maquam, Vt. T., 12 miles.
Pres.—Walter L. Frost, Boston, Mass.
Gen. Mgr.—A. A. Gaddis, Ogdensburg, N. Y.
Sec. and Treas.—Henry A. Church, Boston.
Supt. and Master of Mach.—A. Klohs, Malone, N. Y.
Gen. Pass. and Freight Agt.—F. L. Pomeroy, Ogdensburg, N. Y.
Supt. of Bridges—Jas. N. Brown, "
Gen. Acc'nt. and Cashier—Levi Hasbrouch, Ogdensburg, N. Y.

LANCASTER & READING—Lancaster, Pa., to Quarryville, Pa., 15.25 miles.
Pres.—A. H. Peacock.
Treas.—W. Leaman, Lancaster, Pa.

LARAMIE, NORTH PARK & PACIFIC—Laramie, Wy. T., to Soda Lakes, 13 51 miles.
Pres.—Thom. L. Kimball, Omaha, Neb.
Vice Pres.—Sidney Dillon, New York.
Sec. and Treas.—J. W. Gannett, Omaha, Neb.

LA DORADO—Honda to La Dorado (in the State of Colombia), 30 miles. G. 3 ft.
Grantee and Director Gen.—F. J. Cisneros, New York.
Resident Eng.—N. J. Nichol.
Principal office, Honda, U. S. C.

LAJREUS—(See C. &. G. R. R. Co.)

LAWRENCE—Lawrence, Junc., Pa., to Youngstown, 22.04 miles. Std. G.
Pres.—Louis H. Meyer, New York.
Sec. and Treas.—Jno. J. Haley, Pittsburgh, Pa.

LAWRENCE & EMPORIA—Lawrence, Kan., to Carbondale, Kan., 31 miles. Std. G.
Pres.—Sidney Dillon, New York.
Vice Pres.—Elisha Atkins, Boston.
Sec. and Treas.—Jas. H. Ham, New York.
Asst. Sec.—H. P. Dillon, Topeka, Kan.

LEAVENWORTH, TOPEKA & SOUTHWESTERN—Leavenworth, Kan., to Meridan Junc., Kan., 46.3 miles. Std. G.
Pres.—W. B. Strong, Boston, Mass.
Vice Pres.—F. G. Dexter, "
Treas. and Asst. Sec.—G. L. Goodwin, "

Sec. and Asst. Treas.—E. Wilder, Topeka, Kan.
Compt. and Gen. Aud.—J. P. Whitehead, Boston.
Gen. Mgr.—A. A. Robinson, Topeka, Kan.
Supt.—D. J. Chase, "
Gen. Pass. and Ticket Agt.—W. F. White, Topeka, Kan.
Traffic Mgr.—J. F. Goodnow, "

LEBANON SPRINGS—Chatham Four Corners, N. Y., to Bennington, Vt., 57.1 miles, Std. G.
Recr.—Wm. V. Reynolds, 59 North Pearl st., Albany, N. Y.
Gen. Mgr.—W. C. Van Alstyne, 59 North Pearl st., Albany, N. Y.
Chief Eng.—C. T. Church, 59 North Pearl st., Albany, N. Y.
Gen. Pass. and Ticket Agt.—E. A. Jaques, 59 North Pearl st., Albany, N. Y.
Gen. Freight Agt.—Joseph Child, 59 North Pearl st., Albany, N. Y.
Master Mech.—Geo. Tefft, Chatham, N. Y.
Master Car Builder—W. L. Green, "
Road Master—C. E. Woodard, Bennington, Vt.
Master Car Painter—Jas. McCassey, Chatham.

LEHIGH & HUDSON RIVER—Belvidere, N. J., to Greycourt, N. Y., 63.63 miles. Std. G.
Pres., Gen. Mgr. and Pur. Agt.—Grinnell Burt, Warwick, N. Y.
Vice Pres.—Chas. E. Noble, Moristown, N. J.
Supt.—N. L. Furman, Warwick, N. Y.
Chief Eng.—Chas. Caldwell, Newburgh, N. Y.
Sec. and Treas.—Daniel B. Halstead, New York.
Aud. Gen. Pass., Ticket and Pur. Agt.—John Sayer, Warwick, N. Y.
Asst. Gen. Freight Agt.—Frank E. Smith, Warwick, N. Y.
Master Mech.—S. Mills, "
Supv.—P. W. Barrett, "
Gen. Freight Agt.—F. E. Smith, "

LEHIGH & LACKAWANNA—Bethlehem, Pa., to Wind Gap, Pa., 25 miles. Std. G.
Pres.—F. C. Yarnall, 226 S. Third st., Philadelphia.
Sec. and Treas.—S. Shepherd, "
Aud.—C. F. Howell, "
Agt.—H. B. Fish, Wind Gap, Pa.
Pur. Agt.—E. Hill, 226 S. Third, st., Philadelphia.

LEHIGH VALLEY—Phillipsburg, N. J., to Wilkesbarre, Pa., 321.85 miles. Std. G.
Pres.—Elisha P. Wilbur, Bethlehem, Pa.
Vice Pres.—C. Hartshorne, Philadelphia.
Pres. Asst. and Gen. Agt.—Wm. H. Sayre, Bethlehem, Pa.
Gen. Supt—H. Stanley Goodwin, "
Supt. Pennsylvania and New York and Geneva, Ithaca and Sayre Railroads—Wm. Stevenson, Sayre, Pa.
Chief Eng.—A. W. Stedman, Mauch Chank, Pa.
Sec.—John R. Fanshawe, Philadelphia.
Treas. and Pur. Agt.—W. Chas. Alderson, Philadelphia.
Aud.—Isaac McQuilkin, Philadelphia.
Traffic Mgr.—J. Taylor, Mauch Chunk, Pa.
Gen. Pass. Agt—E. B. Byington, "
Gen. Ticket Agt.—A. W. Nonnemacher, Mauch Chunk, Pa.
Gen. Freight Agt.—J. H. Heckman, "
Master Mechs.—John I. Kinsey, South Easton, Pa.; D. Clark, Hazleton, Pa.; John Campbell, Delano, Pa.; P. Hofecker, Wetherly, Pa.; A. Mitchell, Wilkesbarre, Pa.; J. N. Weaver, Sayre, Pa.
Master Car Builder—John S. Lentz, Packerton, Pa.
Supt. Coal Branches—Jas. I. Blakeslee, Mauch Chunk, Pa.
Div. Supts.—Jas. Donnelly, Easton, Pa.; A. Mitchell, Wilkesbarre, Pa.
Road Masters—John M. Rahm, Towanda, Pa.; Thos. McCarthy, Ithaca, N. Y.

LEWISBURG & TYRONE—Montandon, to Spring Mills, Pa., 43.18 miles.
Pres.—J. N. DuBarry.
Sec. and Treas.—Jas. R. McClure, Phila., Pa.

LITCHFIELD, CARROLLTON & WESTERN—25 miles. Std. G.
Pres.—Geo. W. Davis, Carrollton, Ill.
Vice Pres.—W. H. Ellis, Greenfield, Ill.
Gen. Mgr.—H. S. Carroll, Clarksville, Mo.
Sec.—H. H. Montgomery, Carrollton, Ill.
Treas.—O. Pierson, "
Pur. Agt.—C. W. Keeley, "

LITTLE FALLS & DAKOTA—Little Falls, Minn., to Western Boundary of Minn., 130 miles.
Pres.—Robert Harris, New York.
Vice Pres.—Thos. F. Oakes, "
Sec.—Sam. Wilkeson, "
Treas.—Robt. L. Belknap, "

LITTLE ROCK & FORT SMITH—Argenta, Ark., to Fort Smith, Ark., 168.16 miles. Std. G.
Pres.—First, J. H. Converse; Second, E. Atkins, Boston, Mass.
Vice Pres.—Jesse Turner, Van Buren, Ark.
Gen. Mgr.—Henry Wood, Little Rock, Ark.
Gen. Supt. and Pur. Agt.—Theo. Hartman, Little Rock.
Sec. and Treas.—Jos. Kampman, Boston, Mass.
Aud.—H. G. Allis, Little Rock, Ark.
Traffic Mgr.—J. S. Woodson, "
Asst. Traffic Mgr.—R. D. Lewis, "
Master. Mech.—F. Hufsmith, "
Master Car Builder—Jas. Malone, Argenta, Arkansas.
Road Masters—First, Wm. McLeod; Second, Thos. Daley, Argenta, Ark.
Master of Bridges and Buildings—Jas. McFadden, Little Rock, Ark.
Foreman Loco. Repairs—A. Balb, Argenta.

LITTLE ROCK, MISSISSIPPI RIVER & TEXAS—Little Rock, Ark., to Arkansas City, Ark., 170 miles. Std. G.

Pres.—Elisha Atkins, Boston, Mass.
Treas. Jos. Kampman, "
Gen. Mgr.—Hen. Wood, Little Rock, Ark.
Aud.—A. J. Lamborn, "
Sec. and Gen. Supt.—J. A. Woodson, "

LITTLE SCHUYLKILL—Pt. Clinton to Tamanend, Pa., 54.2 miles.
Pres.—Dan. R. Bennett.
Treas.—Jos. L. Wilson, Philadelphia.

LIVE OAK & ROWLAND'S BLUFF—Live Oak to New Brantford, 24.83 miles. G. 5 ft.
Pres.—Hen. B. Plant, New York.
Vice Pres.—W. S. Chisholm, Savanna, Ga.
Sec.—R. B. Smith, New York.
Gen. Mgr.—H. S. Haines, Savannah, Ga.
Supt.—R. G. Fleming, "
Chief Eng.—F. S. Prendergast, "
Treas.—Wm. P. Harder, "
Gen. Freight and Pass. Agt.—J. L. Taylor, Savannah, Ga.
Pur. Agt.—A. A. Aveilhe, "
Master Mech.—G. M. D. Riley, "
Gen. Agt.—C. D. Owens, Broadway, New York.
Road Master—H. W. Reed, Waycross, Ga.

LOCKPORT & BUFFALO—Lockport, N. Y., to Tonawanda, N.Y., 13.89 miles.
Pres.—Thomas T. Flagler.
Sec. and Treas.—Jos. A. Ward, Lockport, N. Y.

LONDON, HURON & BRUCE—(See Grand Trunk of Canada.)

LONDON & PORT STANLEY—(See Grand Trunk of Canada.)

LONG ISLAND—Long Island City, N. Y., to Greenport, N. Y., 354.12 miles. Std. G.
Pres.—Austin Corbin, 115 Broadway, N. Y.
Vice Pres.—J. R. Maxwell, "
Gen. Supt.—I. D. Barton, Long Island City, N.Y.
Chief Eng.—Anthony Jones, "
Sec.—E. B. Hinsdale, 115 Broadway, N. Y.
Treas.—Henry Graves, "
Aud.—J. Carlsen, Long Island City, N. Y.
Gen. Traf. Mgr.—Chas. M. Heald, Long Island City, N. Y.
Pur. Agt.—B. Norton, "
Master Mech.—C. A. Thomson, "
Gen. Road Master—Geo. W. Offutt, Long Island City, N. Y.

LONGVIEW & SABINE VALLEY—Long View, Tex., to Camden, Tex., 12 miles. G. 3 ft.
Pres. and Gen. Supt.—Brad. Barner, Long View, Tex.
Vice Pres.—Geo. D. Harrison, "
Sec. and Treas.—S. N. Barner, "
Chief Eng.—L. S. Banks, "

LONGWOOD VALLEY—German Valley, N.J., to Port Oram, N.J., 17.2 miles.
Pres.—Jno. Kean, Elizabeth, N. J.

LOS ANGELES & INDEPENDENCE—Santa Monica, Cal., to Los Angeles, Cal., 18.53 miles.
Pres.—Chas. Crocker.
Vice Pres.—Chas. F. Crocker.
Sec. and Treas.—F. S. Doty, San Francisco, Cal.

LOS ANGELES & SAN DIEGO—Florence, Cal., to Santa Ana, Cal., 30.47 miles.
Pres.—Chas. F. Crocker.
Sec.—J. L. Willcutt, San Francisco, Cal.
Treas.—N. T. Smith.

LOUISIANA CENTRAL—East Baton Rouge, La., to Musson, La., 26 miles. G. 5 ft. 6 in.
Pres.—J. G. Parkerson, Vermilionville, La.
Sec.—Wm. S. Parkerson, "
Gen. Supt.—D. C. Montan, "

LOUISIANA & MISSOURI RIVER—Louisiana, Mo., to Cedar City, Mo., 100.9 miles.
Pres.—R. P. Tansey, St. Louis, Mo.
Sec. and Treas.—C. H. Foster, Chicago, Ill.

LOUISIANA AND TEXAS (MORGAN'S)—New Orleans, La., to Vermilion, La., 266 miles. Std. G.
Pres.—A. C. Hutchinson, New Orleans, La.
Vice Pres. and Traf. Mgr.—J. G. Schriever, New Orleans, La.
Sec. and Treas.—J. B. Richardson, "
Supt. R. R. Dep't.—Jul. Kruttschmitt, "
Master Trans.—W. F. Owen, "
Pur. Agt.—C. Triunpy, "

LOUISIANA WESTERN — Vermilionville, La., to Orange, Tex., 112 miles. Std. G.
Pres.—C. P. Hutchinson, New York.
Treas.—I. E. Gates, "
Gen. Mgr.—A. N. Towne, San Francisco.
Supt.—E. G. Thompson, Houston, Tex.
Gen. Ticket Agt.—T. W. Peirce, Jr., "
Gen. Freight Agt.—C. C. Gibbs, "
Master Mech.—D. C. Smith, "
Prin. office and address, Vermilionville, La.

LOUISVILLE, EVANSVILLE & ST. LOUIS—New Albany, Ind., to Mt. Vernon, Ill., 254.9 miles. Std. G.
Pres.—Col. J. H. French, Boston, Mass.
Rec.—Geo. F. Evans, Louisville, Ky.
Gen. Supt.—R. S. Miner, New Albany, Ind.
Chief Eng.—W. A. Van Frank, Huntingburg, Ind.
Cashier and Paymaster—J. S. Odiorne, Louisville, Ky.
Aud.—J. J. Collier, "
Gen. Ticket and Freight Agt.—J. S. Clark, Louisville, Ky.
Gen. Bag. Agt.—J. B. Browning, "
Master Mech. and Car Builder—F. P. Boatman, Evansville, Ind.
Road Masters—J. A. Rodgers, Louisville, Ky.; P. Ryan, La Fayette, Ind.; J. P. Doom, Frankford, Ind.

LOUISVILLE & NASHVILLE — 1,696.15 miles. G. 4-9½, 4-9, 3, 5 ft.
Pres. M. H. Smith, Louisville, Ky.
Vice Prests.—Ex. Norton, New York; Second, A. M. Quarrier, Louisville, Ky.; Third, E. B. Stahlman, Nashville, Tenn.
Gen. Mgr.—B. Dunham, Louisville.
Gen. Supt. Southern Divs.—J. T. Harahan, New Orleans, La.
Con. Eng.—J. H. Vaughan, Louisville.
Res. Eng.—R. Montfort, "
Sec.—Willis Ranney, "
Local Treas.—C. B. Simmons, "
Compt.—C. Quarrier, "
Gen. Pass. Agt.—C. P. Atmore, "
Asst. Gen. Ticket Agt.—J. A. Boyd, "
Gen. Bag. Agt.—J. B. Browning, "
Gen. Freight Agt.—J. M. Culp, "
Pur. Agt.—P. P. Huston, "
Fuel Agt.—D. C. Knowles, "
Master Mech.—Pulaski Leeds, "
Supt. Mach.—H. Middleton, "
Div. Master Mechs.—P. Leeds, Louisville; Wm. Adair, Mobile, Ala.; J. W. Luttrell, Louisville, Ky.; Thos. Walsh, Mt. Vernon, Ill.; J. C. Clifford, Bowling Green, Ky.; W. D. Robb, Pensacola, Fla.; J. V. Slusser, Memphis, Tenn.; W. P. Pike, Nashville, Tenn.; C. W. White, Birmingham, Ala.
Foreman Pass. Car Repairs—J. W. Mosier, Louisville, Ky.
Foreman Freight Car Repairs—J. N. Sanaman, Louisville, Ky.
Foreman Car Painters—Jos. Murphy, "
Supt. of Trans. and Tlgr.—C. R. Barnhart, Louisville, Ky.
Div. Supts.—J. G. Metcalfe and Geo. E. Evans, Louisville, Ky.; Jas. Geddes, Nashville, Tenn.; F. M. Fonda, Asst., Henderson, Ky.; Levi Hege, Birmingham, Ala.; B. C. Eperson, Montgomery, Ala.; E. O. Saltmarsh, Pensacola, Fla.; O. M. Dunn, New Orleans, La; C. O. Parker, Evansville, Ind.
Road Masters—M. Gilhooly, L. C. & L. Div., La Grange, Ky.; P. Norton, Louisville, Ky.; F. M. Ansley, Richmond Junc., Ky.; J. T. Craik, Columbia, Tenn.; W. W. Ansley, Bermingham, Ala.; W. L. Ansley, New Orleans, La.; Colin A. Davies, Pensacola, Fla.; T. J. Ansley, Montgomery, Ala.; B. F. Stroud, Paris, Tenn.; S. E. Tingle, Henderson, Ky.; T. B. Robson, Evansville, Ind.; Tim Mahoney, Owensboro, Ky.

LOUISVILLE, NEW ALBANY & CHICAGO—New Albany, Ind., to Michigan City, Ind., 471.72 miles. Std. G.
Gen. Mgr.—Jno. B. Carson, Chicago, Ill.
Gen. Supt.—Theo. L. Dunn, "
Chief Eng.—J. H. Pearson, "
Sec. and Treas.—W. H. Lewis, "
Aud. and Pur. Agt.—H. O. Nourse, "
Gen. Pass. and Ticket Agt.—Wm. S. Baldwin, Chicago, Ill.
Gen. Bag. Agt.—J. H. Browning, Louisville, Ky.
Gen. Freight Agt.—W. H. McDoel, Chicago, Ill.
Asst. Supt. Tlgr.—C. C. F. Bent, La Fayette, Ind.
Master Mech. and Car Builder.—Josiah Bettis, New Albany, Ind.
Supt. Trans. C. C. F. Bent, La Fayette, Ind.
Road Masters—J. A. Rodgers, Louisville, Ky.; P. Ryan, La Fayette, Ind.; J. P. Doom, Frankfort, Ind.

LOUISVILLE, NEW ORLEANS & TEXAS—Memphis, Tenn., to New Orleans, La., 460 miles. Std. G.
Pres.—R. T. Wilson, New York City.
Vice Pres. and Gen. Mgr.—Jas. M. Edwards, Memphis, Tenn.
Asst. Chief Eng.—R. H. Elliott, "
Sec.—C. H. Bosher, New York.
Treas.—F. M. Davis, "
Aud.—Chas. E. Armstrong, Memphis, Tenn.
Asst. Treas.—Robt. Hazelhurst, "
Gen. Pass. and Freight Agt.—J. S. Davant, Memphis, Tenn.
Master Mech.—E. D. Anderson, Vicksburg, Miss.
Master Car Builder—J. J. Casey, "
Div. Supts.—C. J. Birdsong, Vicksburg, Miss.; Jno. Bradley, New Orleans, La.

LOWELL & FRAMINGHAM—South Framingham to Lowell, Mass., 31.8 miles.
Pres.—S. N. Aldrich.
Treas.—E. D. Hewins, Fitchburg, Mass.

LYKENS VALLEY—Millersburg to Williamstown, Pa., 20 miles.
Pres.—Geo. H. Roberts, Phila., Pa.
Sec.—A. Mordecai, "
Treas.—T. P. Haviland, "

M.

McKEAN & BUFFALO—Larabee, Pa., to Cremont, Pa., 22.15 miles. Std. G.
Pres.—Archer N. Martin, New York.
Sec. and Treas.—F. S. Buell, Buffalo, N. Y.

McMINNVILLE & MANCHESTER—Tullahoma, Tenn., to Rock Island, Tenn., 48 miles.
Pres.—F. J. Ewing, Columbia, Tenn.
Sec. and Treas.—Jo. J. S. Gill, Petersburg, Tenn.

McCOMB, DESHLER & TOLEDO—(See Cincinnati, Hamilton & Dayton).

MAHONING COAL—Andover to Youngstown, O., 38.21 miles.

Pres.—D. P. Eells.
Sec. and Treas.—L. C. Higgins, Cleveland, O.

MAINE CENTRAL—Portland, Me., to Bangor, Me., 483.2 miles. Std. G.
Pres.—Arthur Sewall.
Vice Pres. and Gen. Mgr.—Payson Tucker, Portland, Me.
Chief Eng.—W. A. Allen, "
Treas.—Jos. S. Linscott, "
Aud.—Geo. W. York, "
Gen. Pass. Agt.—F. E. Boothby, "
Gen. Freight Agt.—W. S. Eaton, "
Master Mech.—Amos Pilsbury, Waterville, Me.
Foremen of Loco. Repairs—Jno. Ellis, Waterville, Me.; Frank Robinson, Bangor, Me.; J. A. Pinkerton, Portland.
Master Car Builder—C. H. Kenison, Waterville, Me.
Master Car Painter—E. Hartshorn, Augusta, Me.
Bridge Inspector—D. A. Booker, Brunswick, Me.
Road Masters—J. A. Rodgers, Louisville, Ky.; P. Ryan, La Fayette, Ind.; J. P. Doom, Frankfort, Ind.

MAIN SHORE LINE—Brewer to Hancock, Me., 39.25 miles.
Pres.—Jos. N. Greene, Bangor, Me.
Treas.—H. E. Hamlin.
Sec.—L. A. Emery, Ellsworth, Me.

MANCHESTER & KEENE—(See Boston & Lowell R. R. Co.)

MANCHESTER & LAWRENCE—Manchester, N. H., to Mass. Line, 26.14 miles. Std. G.
Pres.—B. F. Martin, Manchester, N. H.
Treas.—Geo. B. Chandler, "
Clerk—S. N. Bell, "
Supt.—H. E. Chamberlain, Concord, N. H.
Asst. Supt.—J. W. Hildreth, Manchester, N. H.

MANCHESTER & NORTH WEARE—Manchester to North Weare, N. H., 19 miles.
Pres.—Phineas Adams.
Treas.—Josiah Carpenter, Manchester, N. H.

MANHATTAN—The New York and the Metropolitan Elevated Railroads, 32. 34 miles.
Pres.—Jay Gould, 71 Broadway, New York.
Vice Pres.—R. M. Gallaway, " "
Gen. Mgr. and Pur. Agt.—F. K. Hain, 71 Broadway, New York.
Supt. of Trans.—C. L. Green, 4 Front st., "
Chief Eng.—Robert I. Sloan, 71 Br'dw'y, "
Asst. Engs.—John Waterhouse, Ed. A. Trapp, 71 Broadway, New York.
Sec. and Treas.—D. W. McWilliams, 71 Broadway, New York.
Aud.—E. F. J. Gaynor, " "
Gen. Pass. and Ticket Agt.—C. P. McFaddin, 71 Broadway, New York.
Supt. Motive Power and Mach.—T. W. Peeples, Ninety-eighth st. and Third ave.
Master Car Builder—H. A. Webster, Ninety-eighth st. and Third ave.
Road Master—Robert Black, New York.
Supvs.—George Anderson, Second Ave. line; Herman Harms, Third Ave. line; John H. Simmons, Sixth Ave. line; George B. Whitney, Ninth Ave. line; South Ferry Station, New York.

MANHATTAN, ALMA & BURLINGAME—Manhattan, Kan., to Burlingame, Kan., 56.62 miles. Std. G.
Pres.—F. G. Dexter, Boston, Mass.
Vice Pres.—W. B. Strong, "
Treas. and Asst. Sec.—G. L. Goodwin, "
Sec. and Asst. Treas.—E. Wilder, Topeka, Kan.
Compt. and Gen. Aud.—J. P. Whitehead, Boston, Mass.
Gen. Mgr.—A. A. Robinson, Topeka, Kan.
Supt.—D. J. Chase, "
Gen. Ticket Agt.—W. F. White, "
Traffic Mgr.—J. F. Goddard, "

MANHATTAN & BLUE VALLEY—Manhattan to near Garrison, Kan., 15.32 miles.
Pres.—Sidney Dillon, New York City.
Vice Pres.—Elisha Atkins.
Sec. and Treas.—H. McFarland, Boston, Mass.
Asst. Sec.—H. P. Dillon, Topeka, Kan.

MANISTEE—Junction F. & P. M. R. R. to Manistee, Mich., 26.53 miles.
Pres.—H. C. Potter.
Sec. and Treas.—H. C. Potter, Jr., East Saginaw, Mich.

MANITOBA & NORTHWESTERN—Portage la Prairie, Man., to Minnedosa, Man., 79 miles. Std. G.
Pres.—Andrew Allen, Montreal, Que.
Vice Pres.—Duncan McArthur, Winnepeg, Man.
Sec.—F. H. Brydges, "
Treas. and Supt.—W. R. Baker, "
Acc'nt.—J. N. Kingwill, Portage la Prairie, Man.

MANITOBA SOUTHWESTERN COLONIZATION—Winnepeg, Man., to Souris River, 312 miles. Std. G.
Pres.—J. H. Hammond, Winnipeg, Man.
Vice Pres.—Hugh Southerland, "
Sec. and Treas.—J. H. Vanzile, "
Gen. Ticket and Freight Agt.—J. D. Baine, "
Master Mech.—Chas. Newell, "
Road Master—Alex. McClorg, "

MAPLE RIVER—Maple River, Ia., to Mapleton, Ia., 131.2 miles. Std. G.
Pres.—Horace Williams, Cedar Rapids.
Vice Pres.—Fred L. Ames, N. Easton, Mass.
Sec. and Aud.—Henry V. Ferguson, Cedar Rapids, Ia.
Treas.—Dav. P. Kimball, Boston, Mass.

MARIETTA & NORTH GEORGIA—Marietta, Ga., to Murphy, N. C., 110 miles. G. 3 ft.
Pres.—Jos. Kinsey, Cincinnati, O.
Gen. Supt. and Pur. Agt.—J. B. Glover, Marietta, Ga.

Chief Eng.—F. S. Wallace, Ellijay, Ga.
Sec.—H. M. Hammett, Marietta, Ga.
Treas.—L. W. Young, Boston, Mass.
Gen. Pass. and Freight Agt.—W. R. Power, Marietta, Ga.
Master Mech.—Charles Chester, "

MARIETTA MINERAL—25 miles. Std. G.
Pres.—Jos. Kinsey, Cincinnati, O.
Gen. Supt. & Pur. Agt.—J. B. Glover, Marietta, Ga.
Chief Eng.—F. S. Wallace, "
Sec.—H. M. Hammett, "
Treas.—L. S. Young, New York.
Gen. Pass. and Freight Agt.—W. R. Power, Marietta, Ga.
Master Mech.—C. Chester, "

MARQUETTE & WESTERN—(See Detroit, Mackinac & Marquette).

MARQUETTE, HOUGHTON & ONTONAGON — Marquette, Mich., to Houghton, Mich., 134.61 miles. Std. G.
Pres.—George Higginson, Boston.
Gen. Mgr.—Jno. Hornby, Marquette, Mich.
Chief Eng.—C. H. B. Cavis, "
Sec. and Treas.—J. P. Lyman, Boston.
Aud.—S. J. Little, Marquette, Mich.
Gen. Ticket Agt.—W. B. McComb, "
Gen. Freight Agt.—A. S. Parks, "
Pur. Agt.—M. B. McGee, "
Master Mech.—W. A. Mahan, "
Master Car Builder—H. D. Lyons, "
Road Master—Joseph Guy, Ishpeming, Mich.

MARTINSBURG & POTOMAC—Martinsburg to Potomac River, 12.69 miles.
Pres.—Thos. B. Kennedy.
Treas.—M. T. Ingles, Martinsburg, W. Va.

MARYLAND CENTRAL—Baltimore, Md., to Delta, Pa., 45 miles. G. 3 ft.
Pres.—William Waters, Waterval, Md.
Vice Pres. and Finan. Sec.—Wm. Gilmor, Baltimore, Md.
Master of Trans. and Pur. Agt.—O. R. Ford, Baltimore.
Chief Eng.—E. B. Pleasant, Forest Hill, Md.
Treas.—Caleb Taylor, Baltimore.
Aud.—Charles Hatter, "
Gen. Pass., Ticket and Bag. Agt.—S. C. Boyd, Baltimore.
Supt. Motive Power and Master Car Builder—George Beaver, Baltimore.

MARYSVILLE & BLUE VALLEY—Marysville, Kan., to Neb. State Line, 12.7 miles.
Pres.—Q. D. Tuthill, St. Joseph, Mo.
Vice Pres.—J. T. Clark, Omaha, Neb.
Sec. and Treas.—Jos. Hansen, St. Joseph, Mo.

MASSACHUSETTS CENTRAL—Cambridge, Mass., to Northampton, Mass., 116.7 miles. Std. G.
Pres.—Sam. N. Aldrich, Boston, Mass.
Sec. and Treas.—Geo. F. Seymour.

MASSAWIPPI VALLEY—Province Line to Sherbrooke, Que., 55 miles. Std. G.
Pres.—Robt. N. Hall, Sherbrooke, P. Q.
Vice Pres.—Stephen Foster, Stanshead, "
Sec. and Treas.—W. S. Foster, Derby Line, Vt.
Gen. Pass. and Freight Agt.—H. E. Folsom, Lyndonville, Vt.
Master Car Repairs—L. F. Woodward, "
Gen. Ticket Agt.—N. P. Lovering, Jr., "
Master of Mach.—L. L. Brigham, "
Road Master—Geo. Blaisdell, "
Supt. Bridges—J. C. Jones, "

MASSILLON & CLEVELAND—Massillon, O., to Chippewa, O., 12.23 miles. Std. G.
Pres.—Louis H. Meyer, New York City.
Sec. and Treas.—John J. Haley, Pittsburgh, Pa.

MAYSVILLE & LEXINGTON—(See Kentucky Central.)

MEADVILLE—Meadville, Pa., to Linesville, Pa., 20.5 miles. Std. G.
Pres.—G. W. Delamater, Meadville, Pa.
Vice Pres.—A. C. Huidekoper, "
Sec.—H. L. Richmond, Jr., "
Treas.—V. M. Delamater, "
Supt.—J. B. Peters, "
Aud —F. A. Delemater, "

MEHERRIN VALLEY— Margaretsville, N. C., to Hicksford, 20 miles. Std. G.
Pres.—A. W. Jones, Richmond, Va.
Treas.—Jno. H. Bryant, Portsmouth, Va.
Sec.—A. S. Baldwin, New York City.
Gen. Supt.—M. T. Dill, Portsmouth, Va.
Chief Eng.—W. B. Brown, Margaretsville, North Caroli...
Gen. Freight and Ticket Agt.—W. T. Dill, Warren Sta., Va.

MEMPHIS & CHARLESTON—(See East Tennessee, Virginia and Georgia.)

MEMPHIS & LITTLE ROCK—Little Rock, Ark., to Memphis, Tenn., 135 miles. G. 5 ft.
Gen. Mgr. and Agt. for Trustees and Pur. Agt.—Rudolph Fink, Little Rock,
Gen. Supt. and Chief Eng.—H. G. Fleming, Memphis, Tenn.
Treas.—J. W. Goodwin, Little Rock, Ark.
Aud.—C. H. Dolber, "
Gen Pass., Ticket and Freight Agt.—D. Miller, Little Rock, Ark.
Gen. Bag. Agt.—M. Toomey, "
Train Dispatcher—A. J. Whitney, Memphis, Tenn.
Master Mech.—Thomas Rennell, Argenta, Ark.
Master Bridges and Buildings—W. R. Damon, Memphis, Tenn.
Road Master—A. McAvoy, Brinkley, Ark.

MEMPHIS, KANSAS & COLORADO—58.06 miles.
Pres.—Geo. H. Nettleton, Kansas City.
Treas.—Chas. Merriam, Boston, Mass.

MEMPHIS, SELMA & BRUNSWICK—Memphis, Tenn., to Ala. State Line, 175 miles. Std. G.
Pres.—Sam. Thomas, New York.
Vice Pres.—Jere Baxter, Nashville, Tenn.
Sec.—L. M. Schwan, Memphis, Tenn.
Treas.—H. E. Wilton, "
Asst. Treas.—B. G. Mitchell, New York.

METROPOLITAN ELEVATED—18 1 miles.
Pres.—S. H. Kneeland.
Treas.—Jno. E. Body, New York.

MEXICAN—City of Mexico, Mex., to Vera Cruz, Mex., 293 miles.
Pres.—Robt. W. Crawford.
Vice Pres.—Thos. C. Sanders.
Gen. Mgr.—E. W. Jackson.
Sec.—W. W. Ritchie.
Auds. in England—B. H. Adams, Geo. Woolcott.
Consult. Eng.—A. M. Rindel.
Eng. in Mex.—E. Penny.
Aud. in Mex.—E. Penny.
Bankers—Glyn, Mills, Currie & Co.
Solicitors—Freshfields & Williams.
Gen. office, 45 New Broad st., London, E. C.

MEXICAN CENTRAL—Mexico City, Mex., to El. Paso Tex., 1,239 miles. Std. G.
Pres.—Levi C. Wade, Boston.
Vice Pres.—Robt. R. Symon, New York.
Gen. Mgr.—D. B. Robinson, City of Mexico.
Gen. Supt.—D. Mackenzie, "
Chief Eng.—R. E. Briggs, Aguas Calientes, Mex.
Sec. and Treas.—S. W. Reynolds, Boston, Mass.
Aud.—J. H. Goodspeed, "
Traff. Mgr.—H. C. Barton, Chicago, Ill.
Asst. Gen. Pass. and Freight Agts.—M. H. King, Paso del Norte, Mex., and C. Michaelis, City of Mexico.
Pur. Agt.—Theo. Nickerson, Boston, Mass.
Fuel Agt.—G. C. Cleveland, Aguas Calientes.
Supt. Motive Power and Mach.—F. N. Johnson, City of Mexico.
Div. Master Mechs.—R. P. Simpson, City of Mex.; J. Fotitt, Calero, Mex.; E. V. Segewick, Silao, Mex.; W. L. Wallace, Jimulco, Mex.; J. G. McCuen, Chihuahua, Mex.
Master Car Builder—J. O'Brien, City of Mexico.
Supt. Water Service—A. B. Ostrander, Chihuahua.
Bridge Foremen—John Kane, Aguas Calientes.
Div. Supts.—G. T. Jarvis, City of Mexico.; Andrew Smith, Silao, Mex.; Wm. Davis, Jimulco, Mex.; R. E. Comfort, Paso del Norte, Mex.
Supt. Road Dept.—F. E. Nelson, Aguas Calientes.
Road Masters—H. A. Vaughn, City of Mexico; J. P. Prescott, Silao, Mex.; S. M. Rudder, Silao, Mex.; P. Coyne, Aguas, Calientes; H. Banker, Jimulco, Mex.; C. L. Nelson, Jimulco, Mex.; W. C. Capers, Chihuahua; J. C. Shion, Chihuahua, Mex.

MEXICAN NATIONAL—Mexico City, Mex., to San Maguel, Mex., 910.85 miles. G. 3 ft.
Pres.—W. J. Palmer, 32 Nassau st., New York.
First Vice Pres. and Gen. Mgr.—Thos. C. Purdy, City of Mexico.
Second Vice Pres.—Edwin Lewis, New York.
Gen. Supt.—W. E. Lewis, City of Mexico.
Chief Eng.—Geo. W. Waugh, "
Div. Eng.—H. H. Filley, "
Sec.—Jno. Pratt, New York.
Treas.—W. M. Spackman, "
Aud.—H. P. Webb, City of Mexico.
Gen. Pass. and Freight Agt.—W. Morcom, City of Mexico.
Pur. Agt.—Jas. Mendey, "
Master Mech. and Master Car Builder—J. M. Winslow, City of Mexico.
Foremen of Loco. Repairs—Pat. Tobin, C. H. Dorman, City of Mexico.
Div. Supt.—R. C. Peebles, Acambaro, Mex.
Supvs.—Victor Floriex, B. F. Jones, Chas. Ackland, Alf. Rornes, A. B. Shepperd, City of Mexico.

MICHIGAN AIR LINE—Jackson, Mich., to South Bend, Ind., 114.72 miles.
Pres.—J. B. Beaton.
Treas.—M. A. McNaughton, Jackson, Mich.

MICHIGAN AIR LINE—Ridgeway, Mich., to Jackson, Mich., 106.5 miles. Std. G,
Pres—Jos. Hickson, Montreal, Que.
Vice Pres.—A. B. Maynard, Romeo, Mich.
Sec. and Treas.—Robt. Wright, Montreal, Que.
Chief Eng.—E. P. Hannaford, "
Gen. Supt.—W. J. Spicer, "
Acc'nt.—J. H. Muir, Detroit, Mich.

MICHIGAN CENTRAL—
Chairman Board of Directors—C. Vanderbilt, New York.
Pres. and Gen. Mgr.—H. B. Ledyard, Detroit, Mich,
Vice Pres. and Sec.—E. D. Worcester, New York.
Treas.—Henry Pratt, "
Aud.—D. A. Waterman, Detroit, Mich.
Gen. Supt.—E. C. Brown, "
Chief Eng.—J. D. Hawks, "
Gen. Freight Agt.—A. Mackay, Chicago, Ill.
Gen. Pass. and Ticket Agt.—O. W. Ruggles, Chicago, Ill.
Asst. Gen. Pass. and Ticket Agt.—F. I. Whitney, Chicago, Ill.
Gen. Bag. Agt.—H. P. Dearing, "
Pur. Agt.—Allan Bourn, Detroit, Mich.
Gen. Master Mech.—S. H. Edgerly, Jackson, Mich.
Div. Master Mech.—C. E. Smart, Bay City, Mich
Master Car Builder—Robt. Miller, Detroit, Mich.
Div. Master Car Builder—Robert Potts, St. Thomas, Can.
Fuel Agt.—A. F. Howland, Detroit, Mich.
Div. Supts.—J. B. Morford, St. Thomas, Can.; C. B. Bush, Jackson, Mich.; D. S. Sutherland, Detroit; W. A. Vaughn, Bay City, Mich.; R. H. L'Hommedieu, Chicago, Ill.
Supt. Tracks and Bridges—A. G. Dailey, Detroit, Mich.

MICHIGAN MIDLAND & CANADA—St. Clair, Mich., to Ridgeway, Mich., 15 miles. Std. G.
Pres.—J. Tillinghast, Buffalo, N. Y.
Vice Pres.—E. A, Wikes, New York.
Sec.—C. F. Fox, "
Treas.—C. Vanderbilt, "

MICHIGAN & OHIO—Dundee, Mich., to Allegan, Mich., 156 miles. Std. G.
Pres.—J. A. Latcha, Toledo, Ohio.
Eng. Maint. Way and Pur. Agt.—W. L. Webb, Toledo, Ohio.
Aud.—F. S. Anable, " "
Gen. Pass. and Freight Agt.—B. McHugh, Toledo, Ohio.
Master Mech.—D. J. Durrell, Marshall, Mich.
Supt. Bridges.—F. Russell, " "
Supvs.—Jos. Rowell, Addison, Mich; William McCarthy, Addison, Mich.

MIDDLEFORD & CRAWFORD—Crawford Junction to Pine Bush, N. Y., 10.67 miles.
Pres.—E. M. Madden
Sec. and Treas.—I.P.Madden, Middletown, N.Y.

MIDDLETOWN, UNIONVILLE, & WATER GAP—Middletown, N. Y., to Unionville, N. J., 13.46 miles.
Pres.—H. P. Tallmadge.
Treas.—Chas. V. Ware, New York.

MIDLAND OF CANADA—(See Grand Trunk).

MIDLAND, NORTH CAROLINA—Morehead City, N. C., to Paint Rock, Tenn., 561 miles. G., 6 ft.
Pres. and Gen. Mgr.—Wm. J. Best, New York.
Vice Pres.—Lewis Coleman, Boston, Mass.
Treas.—W. S. Denny, " "
Sec.—J. P. Caddegan, Newbern, N. C.
Gen. Supt.—J. W. Andrews, " "
Asst. Gen. Mgr.—W. W. Carruth, " "
Gen. Ticket and Freight Agt.—L. L. Dill, Newbern, N. C.
Master Mech.—Basil Manly, " "
Road Master—Hugh Murdock, " "
Pur. Agt.—D. J. Sprague, New York.

MIFFIN & CENTRE COUNTY—Lewistown Junc. to Melroy, Pa., 12.31 miles.
Pres.—J. N. DuBarry.
Treas.—Albert Hewson, Philadelphia.

MILFORD & WOONSOCKET—Milford, Mass. to Bellingham, Mass., 20.17 miles. Std. G.
Pres.—Geo. Draper, Milford, Mass.
Gen. Supt.—W. W. Jencks, " "
Treas.—J. E. Walker, " "
Road Master—D. R. Fall, " "

MILWAUKEE, LAKE SHORE & WESTERN—Milwaukee, Wis., to end of track, Town 46, Mich., 389.7 miles. Std. G.
Pres.—F. W. Rhinelander, New York.
Vice Pres.—Jos. A. Busk, "
Gen. Supt., Chief Eng. and Pur. Agt.—H. G. H. Reed, Milwaukee, Wis.
Solic. and Sec.—A. L. Cary, " "
Asst. Sec.—Sam. S. Sands, New York.
Treas.—Gordon Norrie, Milwaukee, Wis.
Aud.—C. F. Raud, " "
Asst. Treas.—A. D. Allibone, " "
Supt.—J. Donohue, " "
Gen. Pass. and Freight Agt.—H. F. Whitcomb, Milwaukee, Wis.
Fuel Agt.—Geo. H. Anderson, " "
Master Mech.—John Hickey, Ledyard, Wis.
Foreman Paint Shop—Hen. Herzog, " "
Div. Supt.—D. B. Curtis, Oshkosh, Wis.
Road Masters—P. Plunkett, Clintonville, Wis.; Thos. Dwyer, Manitowoc, Wis.

MILWAUKEE & LAKE WINNEBAGO—Schleisingerville to Neenah, Wis., 65 miles.
Pres.and Treas.—Chas. L.Colby, Milwaukee, Wis.

MILWAUKEE & NORTHERN—Schwartzburg to Green Bay and Fort Howard, Wis. 222 miles.
Pres.—Alfred M. Hoyt, New York city.
Vice. Pres.—James C. Spencer, Milwaukee, Wis.
Gen. Supt.—C. F. Dutton, " "
Asst. Supt.—H. M. Bell, Green Bay, Wis.
Chief Eng. Wisconsin & Michigan R.—C. S. Woodard, Green Bay, Wis.
Solic. and Sec.—Geo. H. Noyes, Milwaukee, Wis.
Treas.—Guido Pfister, " "
Aud.—Robert Toombs, " "
Gen. Ticket Agt.—F. P. Regan, " "
Gen. Freight Agt.—J. J. Coleman, " "
Master Mech.—N. S. Kimball, Fort Howard, "
Foreman of Loco. Repairs—John Cannon, Fort Howard, Wis.
Foreman of Car Repairs—C. E. Schultz, Fort Howard, Wis.
Foreman Car Painters—J. L. Henderson, Fort Howard, Wis.
Road Masters—P. O'Conner, P. Neugent, Green Bay, Wis.

MILE HILL & SCHUYLKILL HAVEN—Schuylkill Haven to Locust Gap, Pa., 134 miles.
Pres.—Wm. Biddle, Germantown.
Treas.—Jno. W. Biddle, Phila., Pa.

MINERAL RANGE—Hancock, Mich., to Calumet, Mich., 12.5 miles. G. 3 ft.
Pres. and Gen. Mgr.—Chas. E. Holland, Hancock, Mich.
Vice Pres.—R. M. Hoar, Houghton, Mich.
Sec. and Treas.—C. A. Wright, Hancock, Mich.
Gen. Pass., Freight and Pur. Agt.—W. H. Carr, Hancock, Mich.
Master Mech. and Car. Builder—T. J. Shellhorn, Hancock, Mich.
Road Master—Ole Olson, " "
Transfer Agt.—C. A. Wright, " "

MINNEAPOLIS, LYNDALE & MINNETONKA—Minneapolis, Minn., to Excelsior, Minn., 20 miles. G. 3 ft.

Pres.—Wm. McCrory, Minneapolis, Minn.
Vice Pres.—Gen. R. Brinkerhoff, Mansfield, O.
Chief Eng.—Geo. W.Cooley, Minneapolis, Minn.
Pur. Agt., Sec. and Aud.—T. J. Janney, Minneapolis, Minn.
Treas.—S. E. Neilen, " "
Gen. Pass. Agt.—R. S. Innes, " "
Master Mech.—T.W.Heintzelman," "
Road Master—J. W. Doherty, " "

MINNEAPOLIS & ST. LOUIS—Minneapolis (via) Fort Dodge Ia., to Augusta, 421 50 miles. Std. G.
Pres.—R. R. Cable, Chicago, Ill.
Vice Pres. and Gen. Mgr.—W. H. Truesdale, Minneapolis, Minn.
Supt.—T. E. Clarke, " "
Chief Eng.—R. Angst, " "
Sec. and Treas.—Joseph Gaskell, " "
Aud.—E. W. Partridge, " "
Gen. Pass. and Ticket Agt.—S. F. Boyd, Minneapolis, Minn.
Gen. Bag. Agt.—J. D. Marsten, Chicago.
Gen. Freight Agt.—J. A. Hanley, Minneapolis.
Asst. Gen. Freight Agt.—T. A. Whitmore, "
Pur. Agt.—W. B. Palmer, "
Master Mech. and Car Builder—Geo. F. Wilson, Minneapolis.
Master Car Painter—Jas. Mencin, "
Foremen of Loco. Repairs—H. B. Stebbins, Albert Lea, Minn.; G. H. Webster, Ft. Dodge, Ia.; W. H. Whitaker, Minneapolis, Minn.
Road Masters—P. M. McElroy, Minneapolis; Jas. Burke, Minneapolis; M. O'Brien, Waterville, Minn.; J. Madden, Waseca, Minn; D. Connell, Fort Dodge, Ia.
Supt. of Bridges and Buildings—W. B. Hixson, Minneapolis.

MINNESOTA CENTRAL—(See Minneapolis & St. Louis.)

MISSISQUOI—St. Albans, Vt., to Richford, Vt., 28.85 miles. Std. G.
Trustees—W. C. Smith, St. Albans, Vt.; Benj. P. Cheney, Boston, Mass.
Mgr.—W. C. Smith.
Gen. Ticket and Pas. Agt.—J. M. Dea.

MISSISSIPPI & TENNESSEE—Grenada, Miss., to Memphis, Tenn., 99.26 miles. Std.G.
Pres.—F. M. White, Memphis, Tenn.
Vice Pres.—R. T. Wilson, New York.
Gen. Supt. and Pur. Agt.—M. Burke, Memphis.
Sec. and Treas.—S. H. Lamb, "
Gen. Ticket and Freight Agt.—A.J.Knapp, "
Master Mech.—J. C. Ramsey, "
Master Car Builder—S. J. Bolton, "
Road Master—J. T. Salter, Sardis, Miss.
Gen. Mgr.—Jas. M. Edwards, Memphis, Tenn.

MISSOURI, IOWA & NEBRASKA—Keokuk, Ia., to Van Wert and Albia, Ia., 186 miles.
Pres.—A. L. Hopkins, New York.
Vice Pres.—J. A. Talbot.
Sec. and Treas.—T. P. Shontz, Centreville, Ia.
Asst. Sec., Asst. Treas. and Trans. Agt.—O. D. Ashley, New York.

MISSISSIPPI VALLEY & SHIP ISLAND—(See Louisville, New Orleans & Texas).

MISSOURI, KANSAS & TEXAS—Hannibal, Mo., to Taylor, Tex., 1,386 miles. Std.G.
Pres.—Jay Gould, New York.
First Vice Pres.—R. S. Hayes, St. Louis, Mo.
Second Vice Pres.—A. L. Hopkins, New York.
Third Vice Pres.—H. M. Hoxie, St, Louis, Mo.
Sec. and Treas.—H. B. Henson, New York.
Gen. Trans. Mgr.—A.A.Talmage, St. Louis, Mo.
Supt.—J. B. VanDyne, Sedelia, "
Gen. Aud.—C. G. Warner, " "
Supt. Bridges—R. M. Peck, Pacific, "
Pur. Agt.—R. B. Lyle, St. Louis, "
Res. Eng.—H. McLaughlin, " "
Gen. Ticket Afit.—F. Chandler, " "
Gen. Pass. Agt.—H. C. Townsend, " "
Gen. Traffic Mgr.—Geo. Olds, " "
Supt. Mach.—Jno. Hewitt, " "
Supt. Car. Dept.—Jno. Hodge, " "

MISSOURI PACIFIC—St. Louis, Mo., to Omaha, Neb., 6.045 miles. Std. G.
Pres.—Jay Gould, New York.
First Vice Pres.—R. S. Hayes, St. Louis, Mo.
Second Vice Pres.—A. L. Hopkins, New York.
Third Vice Pres.—R. M. Hoxie, St. Louis.
Gen. Trans. Mgr.—A. A. Talmage, "
Sec. and Treas.—A. H. Calef, New York.
Aud.—C. G. Warner, St. Louis.
Traf. Mgr.—Geo. Olds, "
Gen. Pass. Agt.—H. C. Townsend, "
Gen. Ticket Agt.—F. Chandler, "
Gen. Bag. Agt.—J. C. Nicholas, "
Gen. Freight. Agt.—J. J. Rogers, "
Pur. Agt.—R. B. Lyle, "
Fuel Agt.—H. T. Lemest, "

MISSOURI PACIFIC, CENTRAL BRANCH PACIFIC AND MISSOURI, KANSAS & TEXAS—G. 4.8½.
Supts.—A. M. Hayes, Sedalia, Mo.; W. W. Fagan, Atchison, Kan.; J. B. Van Dyne, Sedalia, Mo.
Supt. Mot. Power and Mach.—John Hewitt, St. Louis, Mo.
Div. Master Mechs.—Le Roy Bartlett, St Louis; E. Taylor, Sedalia, Mo.; H. V. Faries, Atchison, Kan.; J. W. Haines, Parsons, Kan.; C. W. Clark, Denison, Texas.
Supt. Car Dept.—John Hodge, St. Louis.
Asst. Supts. Car Dept.—S. Irwin, Sedalia, Mo.; J. W. Blackburn, Atchison, Kan.
Master Car Painters—Geo. Forby, St. Louis; E. E. Earle, Sedalia, Mo.; A. M. Christie, Atchison, Kan.
Supt. Bridges and Bldgs.—J. B. Mitchell, Atchison, Kan.
Road Masters—M. J. Fitzpatrick, Atchison, Kan.; C. O. Bigelowe, Downe, Kan.; D. W. C. Perry, Parsons, Kan,; E. Courtney, Denison, Texas; O. H. Earl, Ft. Worth, Tex.; R. J. Duncan, Greenville, Tex.

MOBILE & ALABAMA GRAND TRUNK—Mobile, Ala., to Bigbee Bridge, Ala., 56.2 miles. G. 5 ft.
Pres.—F. B. Clark, Mobile, Ala.
Sec. and Treas.—W. T. Taylor, "
Gen. Solic.—G. B. Clark, "

MOBILE & GIRARD—Columbus, Ga., to Troy, Ala., 85 miles. G. 5 ft.
Pres.—W. G. Raoul, Savannah, Ga.
Sec. and Treas.—J. M. Frazer, Columbus, Ga.
Gen. Freight and Ticket Agt.—D. E. Williams, Columbus, Ga.
Mast. Trans.—H. M. Howard, "
Supt.—W. L. Clark, "
Mast. of Mach.—J. C. Albrecht, "
Mast. of Car Repairs—A. J. Nix, "
Road Master—N. Brittingham, "

MOBILE & MONTGOMERY—Mobile to Montgomery, Ala., 178.8 miles. G. 5 ft.
Pres.—Josiah Morris.
Sec.—G. W. Craik, Montgomery, Ala.

MOBILE & NORTHWESTERN—Glendale, Miss., to Clarksdale, Miss., 31 miles. G. 3 ft.
Pres.—T. A. Lyon, Glendale, Miss.
Treas.—Geo. Vidmer, Mobile, Ala.
Road Master—Jas. Mayhew, Glendale, Miss.

MOBILE & OHIO—Mobile, Ala., to East Cairo, Ill., 527-miles. G. 5 ft.
Pres.—W. Butler Duncan, New York.
Vice Pres., Gen. Mgr. and Chief Eng.—T. M. R. Talcott, Mobile, Ala.
Gen. Supt. and Asst. Chief Eng.—J. G. Motley, Mobile, Ala.
Div. Eng. and Supt. Northern Div.—E. S. Hosford, Jackson, Tenn.
Sec. and Treas.—Henry Tacon, Mobile, Ala.
Aud.—Geo. Layet, "
Gen. Pass., Ticket and Freight Agt.—Chas. J. Waller, Mobile, Ala.
Gen. Bag. Agt.—T. D. Bell, "
Pur. Agt.—Frank Jordan, "
Mast. Mech.—M. T. Carson, Whistler, "
Div. Mast. Mech.—H. T. Good, Jackson, "
Mast. Car Build.—J. T. Booth, Whistler, "
Foreman Car Painters—G. A. Charires, Whistler, Ala.
Road Masters—F. H. Deas, Enterprise, Miss; D. W. Pease, Crawford, Miss.; J. F. Grogan, Jackson, Tenn.; W. H. Wells, Cairo, Ill.

MONADNOCK — Winchendon, Mass., to Peterborough, N. H., 16.4 miles.
Pres.—H. K. French.
Sec. and Treas.—J. H. Cutter, Peterborrough, N. H.

MONT ALTO—Mont Alto, Pa., to Junc. C. V. R. R., 17.88 miles. Std G.
Pres.—T. B. Kennedy, Chambersburg, Pa.
Gen. Supt., Chief Eng. and Pur. Agt.—Geo. B. Wiestling, Chambersburg, Pa.
Sec., Treas., Pass and Freight Agt.—E. B. Wiestling, Chambersburg, Pa.
Prin. office and address, Mont Alto, Franklin Co., Pa.

MONTEREY—Castroville, Cal., to Monterey, Cal., 16.55 miles. Std. G.
Pres.—Chas. Crocker.
Vice Pres.—Chas. F. Crocker.
Sec.—J. L. Willcutt, San Francisco, Cal.
Treas.—N. T. Smith.

MONTGOMERY & ERIE—Montgomery to Goshen, 10.27 miles.
Pres.—J. M. Wilkin.
Treas.—C. J. Everett.
Sec.—Walter J. Mead, Montgomery, N. Y.

MONTGOMERY & EUFAULA—Montgomery, Ala., to Eufaula, Ala., 80 miles. G. 5 ft.
Pres.—W. G. Raoul.
Sec. and Treas.—Edward McIntyre, Savannah, Ga.

MONTGOMERY & SOUTHERN—Montgomery, Ala., to Rutledge, Ala., 50 miles. G. 3 ft.
Pres.—M. P. LeGrande, Montgomery, Ala.
Gen. Mgr., Sec and Treas.—S. D. Hubbard, Montgomery, Ala.

MONTOUR—Montour Junc. to Imperial, Pa., 12 miles. Std. G.
Pres.—Wm. McCreery, Pittsburgh, Pa.
Gen. Supt. and Pur. Agt.—Chas. R. Brown, Imperial, Pa.
Chief Eng.—C. A. Cooper, Pittsburgh, Pa.
Sec. and Treas.—Wm. M. Short, "
Aud. Gen. Pass., Ticket and Freight Agt.—L. M. Jenkins, Imperial, Pa.
Mast. Mech.—Henry Newman, "
Road Master—Dan. Mahoney, "

MONTPELIER & WILLS RIVER—Montpelier, Vt., to Wells River, Vt. 38.22 miles. Std. G.
Pres.—D. R. Sortwell, East Cambridge, Mass.
Vice Pres.—S. S. Thompson, Lyndonville, Vt.
Gen. Supt.—W. A. Stowell, Montpelier, Vt.
Sec. and Treas.—Joel Foster, Jr., "
Cash., Gen. Pass. and Freight Agt.—F. W. Morse, Montpelier, Vt.
Supt. Motive Power and Mach.—C. C. Field, Montpelier, Vt.
Mast. Car Builder—C. F. Robinson, "
Road Master—E. R. Morse, "

MONTREAL, PORTLAND & BOSTON—(See Southeastern).

MONTREAL & SOREL — Armstrong to St. Lambert, Que., 46 miles. Std. G.
Pres.—Jas. Armstrong, Sorel, Que.
Vice Pres.—Jno. Rankin, Montreal, Que.
Sec. and Treas.—W. Newhouse, "

MONTREAL & VERMONT JUNCTION—Vermont State Line, to St. John's, Que., 23.6 miles. Std. G.

Principal office and address, St. John's, Que.

MONTROSE—Mon rose, Pa., to Tunkhannock, 28 miles. G. 3 ft.
Pres. and Pur. Agt.—Jas. I. Blakslee, Mauch Chunk, Pa.
Sec—J. R. Raynsford, Montrose, Pa.
Treas. and Gen. Pass. and Freight Agt.—A. P. Blakslee, Mauch Chunk, Pa.

MORGANS, LOUISIANA & TEXAS—266 miles. Std. G.
Pres. and Gen. Mgr.—A. C. Hutchinson, New Orleans, La.
Vice Pres. and Traffic Mgr.—J. G. Schriever, New Orleans, La.
Supt. and Chief Eng.—J. Kruttschmitt, New Orleans, La.
Sec. and Treas.—John B. Richardson, New Orleans, La.
Aud.—E. M. Underhill, "
Gen. Baggage Agt.—F. Borge, "
Pur. Agt.—C. Trumpy, "
Master Mech.—Jas. D. Connell, Algiers, La.
Div. Master Mech.—H. Flint, Lafayette, La.
Foreman Loco. Repairs—R. L. Herbert, Algiers, La.
Foreman Car Builder—Jno. Hilderbrand, Algiers, La.
Foreman Car Repairs—Wm. O'Brien, "
Master Car Painter—Julius Dussell, "
Road Masters—Chas. Mallard, New Orleans, La., J. T. Dowdell, Lafayette, La.

MORRIS & ESSEX—Hoboken, N. J., to Phillipsburg, N. J., 368.99 miles. Std. G.
Pres.—Samuel Sloan.
Sec. and Treas.—Fred F. Chambers, New York.
Supt.—Andrew Reasoner, Hoboken, N.J.

MOUNT PLEASANT & BROAD FORD—Mt. Pleasant to Broad Ford, Pa., 11.6 miles.
Pres.—Robt. Garrett, Baltimore, Md.
Sec., Treas. and Aud.—J. B. Washington, Pittsburgh, Pa.

N.

NAPANEE, TAMWORTH & QUEBEC—29 miles. Std. G.
Pres.—Alex. Henry, Napanee, Ont.
Vice Pres.—W. R. Aylesworth, Deseronto, Ont.
Gen. Mgr.—E. W. Rathbun, "
Asst. Gen. Mgr.,—R. C. Carter, "
Supt.—H. B. Sherwood, Napanee, Ont.
Sec.—W. S. Williams, "
Treas.—F. S. Rathbun, Deseronto, Ont.
Aud.—C. A. Melliner, "
Master Mech.—J. A. Davis, "
Chief Eng.—M. J. Butler, Napanee, Ont.

NASHUA, ACTON & BOSTON—Nashua, N. H., to Acton, Mass., 20.21 miles.
Pres. J. C. Moulton, Laconia, N. H.
Treas.—F. D. Cook, Nashua, N. H.

NASHUA & LOWELL—Lowell, Mass., to Nashua, N. H., 35.8 miles.
Pres.—Francis A. Brooks.
Treas.—Chas. B. Brooks, Boston, Mass.
Clerk of Corp.—Walter A. Lovering, Nashua, N. H.

NASHUA & ROCHESTER—Nashua, N. H., to Rochester, N. H., 53.39 miles.
Officers, (see Worcester & Nashua).

NASHVILLE, CHATTANOOGA & ST. LOUIS—Chattanooga, Tenn., to Hickman, Ky., 554 miles. G. 5 ft.
Gen. Mgr.—J. W. Thomas, Nashville, Tenn.
Chief Eng.—R. C. Morris, "
Sec. and Treas.—R. C. Bransford, "
Gen. Bookkeeper—J. D. Maney, "
Gen. Pass. and Ticket Agt.—W. L. Danley, Nashville, Tenn.
Gen. Freight Agt.—George R. Knox, "
Master Mech. and Car Builder—James Cullen, Nashville, Tenn.
Div. Supt.—M. J. C. Wrenne, "
Road Masters—Walter Rosser, T. T. Mahoney, Nashville, Tenn.
Supt.—M. J. C. Wrenne, Nashville, Tenn.
Compt.—J. D. Maney, "

NASHVILLE & DECATUR—Nashville, Tenn., to Decatur, Ala., 119.9 miles.
Pres.—J. W. Sloss, Birmingham, Ala.
Sec. and Treas.—G. W. Seay, Nashville, Tenn.

NASHVILLE & FLORENCE—(See Louisville & Nashville.)

NATCHEZ, JACKSON & COLUMBUS—Natchez, Mass., to Jackson, Miss., 100 miles. G. 3-6
Pres.—William T. Martin, Natchez, Miss.
Gen. Supt. and Pur. Agt.—E.D.Frost, "
Sec.—Jos. M. Kern, "
Treas.—Geo. W. Koontz, "
Aud., Gen. Freight and Pass. Agt.—W. H. Lingard, Natchez, Miss.
Master Mech.—J. T. Pratt, "
Road Master—J. C. Mandeville, Hermansville, Miss.

NATCHEZ, RED RIVER & TEXAS—Vidalia, La., to Sabine River, 160 miles G. 3 ft.
Pres.—Hiram R. Steele, Vidalia, La.
Vice Pres. and Gen. Mgr.—A. R. Fiske, N. Y.

Sec., Treas., Supt. and Pur. Agt.—J. Houston, Vidalia, La.
Chief Eng.—T. D. Randall "

NAUGATUCK—Naugatuck Junc., Conn., to Winsted, Conn., 66.16 miles. Std. G.
Pres.—Hon. Wm. D. Bishop, Bridgeport, Conn.
Gen.Supt.—GeorgeW.Beach, Waterbury, Conn.
Sec. and Treas.—Horace Nichols, Bridgeport, Conn.
Aud.—Samuel Wilmot, "
Gen. Ticket and Pur. Agt.—Henry A. Bishop, Bridgeport,Conn.
Supt.Rolling Stock—Henry D.Beach, "
Foreman of Loco. Repairs—Henry Hanford, Briegeport, Conn.
Foreman of Car Repairs—George W. Gray, Bridgeport, Conn.
Foreman Car Painters—Samuel J. House, Bridgeport, Conn.
Road Master—J. C. Egleston,Waterbury, Conn.
Supv. Bridges.—S. M. Burns, "

NESQUEHONING VALLEY—Nesquehoning Junc., to Tamanend, Pa., 16.5 miles.
Pres.—J. B. Moorhead.
Treas.—C. F. Howell, Phila, Pa.

NEVADA CENTRAL—Battle Mountain, Nev., to Austin, Nev., 93.3 miles. G. 3 ft.
Recr.—C. W. Hinchcliffe, Austin, Nev.
Pres.—Chas. F. Adams, Jr., Boston, Mass.
Vice Pres.—Sidney Dillon, New York.
Treas.—J. K. Choate, Denver, Col.
Supt. Telg.—O. B. Vincent, Austin, Vev.
Supt. Motive Power,Mach. and Road Master.—J. B. Gilchrist, Battle Mountain, Nev.

NEVADA COUNTY NARROW GAUGE—Colfax, Cal., to Nevada City, Cal., 22.64 miles. Std. G.
Pres. Gen. Mgr. and Chief. Eng.—Jno. F. Kidder, Grass Valley, Cal.
Vice Pres.—Peter Johnson, "
Sec. and Aud.—Geo. Fletcher, "
Master Mech. and Car Builder—Jas. McCormack, Grass Valley, Cal.
Master Car Painter—Geo. Murphy, "
Foremen of Track—Robt. Scanlan, Buena Vista, Cal.; Dennis Seanlan, Grass Valley, Cal.

NEVADA & OREGON—Aurora, Nev., to Goose Lake, Cal., 300 miles. G. 3ft.
Pres. and Supt.—D. W. Balch, Reno, Nev.
Vice Pres.—F. F. Fowler, New York.
Treas.—A. H. Manning, Reno, Nev.
Sec.—Geo. A. King, "

NEWARK, SOMERSET & STRAIGHTSVILLE—Newark, O., to Shawnee, O., 44 miles Std. G.
Pres.—David Lee, Zanesville, O.
Treas. and Sec.—J. Hope Sutor, "
Gen. Ticket Agt.—L. M. Cole, Baltimore, Md.
Gen. Mgr.—G. J. Foreacre, Newark, O.
Gen. Freight Agt.—Frank Harriett, Balto., Md.
Chief Eng.—Jas. L. Randolph, "

NEW BRIGHTON & NEW CASTLE—New Brighton, Pa., to New Castle, Pa., 21 miles.
Pres.—Thos. D. Messler, Pittsburgh, Pa.
Treas.—John E. Davidson, "
Sec.—S. B. Liggett, "

NEW BRUNSWICK—Gibson, N. B., to Edmundston, N., B., 424 miles. Std. G.
Pres.—Samuel Thorne, 67 Wall st., New York.
Vice Pres.—Hon. Isaac Burpee, St. John, N. B.
Gen.Mgr.and Freight Agt.—E.R.Burpee, "
Gen. Pass., Freight Agt.,Sec. and Treas.—Alfred Seely, St. John, N. B.
Aud.—Alex. McNaughton, "
Gen. Pass., Ticket and Bag. Agt.—N. T. Greathead, St. John, N. B.
Pur. Agt.—J. J. Seely, Woodstock, N. B.
Div. Mast. Mechs.—Jesse Mathews, Gibson, N. B.; T. Armstrong, St. Andrews, N. B.
Mast. Car Builder—T.N. Burpee, McAdam,N.B.
Foreman of Car Repairs—J. W. Brittain, St. John, N. B.
Train Supt.—John Stewart, Woodstock N. B.
Road Masters—D. Tapley, Gibson, N. B.; A.J. Miles, Woodstock, N. B.; Geo. Gabel, Grand Falls, N. B.; E. Howard, St.Andrews, N. B.; D. Brown, St. John, N. B.
Prin. office and address, Gibson, N. B., Can.

NEW BRUSWICK & CANADA—(See New Brunswick).

NEWBURG, DUTCHESS & CONNECTICUT—Dutchess Junc. to Millerton, N. Y., 58.84 miles. Std. G.
Pres. and Treas.—John S. Schultze, Matteawan, N. Y.
Gen. Supt. and Gen. Freight and Pur. Agt.—C. L Kimball, Matteawan, N. Y.
Sec.—W. A. Wells, "
Aud., Gen. Pass. and Ticket Agt.—W.H.Moore, Matteawan, N. Y.
Mast. Mech., Car Builder and Car Painter—W. G. Van Buskirk, Dutchess Junction, N. Y.
Road Master—B. F. Stowell, Matteawan, N. Y.

NEWBURG & NEW YORK—Greenwood to Vail's Gate, N. Y., 12.59 miles
Pres.—Hugh J. Jewett, New York City.

NEWBURYPORT—Bradford to Newburyport, and Georgetown to Danvers, 29.56 miles.
Pres.—N. G. White.
Treas.—A. Blanchard, Boston, Mass.

NEW CASTLE & BEAVER VALLEY—New Castle, Pa., to Homewood, Pa., 14.98 miles. Std. G.
Pres.—A. L. Crawford, New Castle, Pa.
Sec. and Treas.—J. A. Crawford, "

NEWFOUNDLAND—St. John's to Hall's Bay, Newfoundland, 440 miles. G. 3-6.
Pres.—Wm. Bond, New York.
Vice Pres. and Gen. Mgr.—C. X. Hobbs, St. Johns, Nfd.
Sec. and Treas.—F. W. Allin, New York.

Aud.—C. E. Saville, St. Johns.
Chief Eng.—Mason Loomis, "

NEW HAVEN & DERBY—New Haven, Conn., to Ansonia, Conn, 13 miles. Std. G.
Pres.—Joel A. Sperry, New Haven, Conn.
Vice Pres.—Chas. L. English, "
Gen. Supt., Pur. Agt. and Road Master—E. S. Quintard, New Haven, Conn.
Sec. and Gen. Ticket Agt.—F. E. Harrison, New Haven, Conn.
Treas.—Chas. Atwater. "
Gen. Freight Agt.—Fred. Quintard, "
Mast. Mech. and Mast. Car Builder—J. M. Whitlock, New Haven, Conn.

NEW HAVEN & NORTHAMPTON—New Haven, Conn., to Conway Junc., Mass., 173.1 miles. Std. G.
Pres.—C. N. Yeamans, New Haven, Conn.
Supt.—S. B. Opdyke, Jr., "
Sec., Treas. and Gen. Pass. and Ticket Agt.—E. A. Ray, New Haven, Conn.
Pur. Agt.—R. G. Curtis, "
Mast. Mech.—Henry Fox, "
Foreman of Car Repairs—John Sweeney, "
Road Masters—E. Collins, Westfield, Mass.; H. Baker, Northampton, Mass.

NEW JERSEY & NEW YORK—Hackensack, N. J, to Stoney Pt., N. Y., 36.75 miles. Std. G.
Pres—Valentine L. Lary, 1 Pavonia ave., Jersey City, N. J.
Vice Pres.—Isaac D. Demarest, Oradell, N. J.
Gen. Mgr. and Aud.—J. D. Hasbrouck, 1 Pavonia av., Jersey City, N. J.
Gen. Supt. and Mast. Mech.—J. S. Drake, Hillsdale, N. J.
Sec. and Treas.—H. C. Demine, 1 Pavonia av., Jersey City, N. J.
Mast. Car Builder—L. B. Wagnen, Hillsdale, N.J.
Foreman Loco. Repairs—R.W. Jepson, "
Road Master—L. Doyle, Westwood, N. J.

NEW JERSEY SOUTHERN—Sandy Hook to Atco, N. J., 88.27 miles.
Pres.—Henry S. Little, New York.

NEW LONDON NORTHERN—(See Central Vermont).

NEW ORLEANS & CARROLLTON—New Orleans, La., to Carrollton, La., 17 miles. Std. G.
Pres.—W. Van Benthuysen, New Orleans.
Sec. and Treas.—W. V. Couch.
Supt.—C. V. Haile.
Chief Eng.—John Dahmer.
Road Master—M. M. Kountz.
Mast. Mech.—John Dahmer.

NEW ORLEANS & MISSISSIPPI VALLEY—New Orleans, La., to Mississippi Line, 140 miles. Std. G.
Pres.—R. T. Wilson.
Sec. and Treas.—C. H. Bosher.
Vice Pres. and Chief Eng.—John A. Grant.
Gen. Mgr.—J. M. Edwards.

NEW ORLEANS & MOBILE—New Orleans, La., to Mobile, Ala., 141 miles. G. 5 ft.
Pres.—E. H. Green.
Sec.—D. Thomson, New York.

NEW ORLEANS & NORTHEASTERN—(See Cincinnati, New Orleans & Texas Pacific.)

NEW ORLEANS & SELMA—New Orleans to Selma, Ala., 240 miles. G. 5ft.
Recr.—Norman Webb, Selma, Ala.
Supt.—L. B. Schofield, "
Mast. Mech.—J. D. Fitzgerald, "
Road Master—J. E. Goodson, "

NEWPORT & RICHFORD—Newport, Vt., to Canada Line, 23 miles.
Pres.—E. Raymond, Cambridge, Mass.
Sec. and Treas.—H. E. Folsom, Lyndonville, Vermont.

NEW YORK, BAY RIDGE & JAMAICA—Bay Ridge to New Lots, 16.32 miles.
Pres.—Austin Corbin.
Treas.—F. W. Dunton, Brooklyn, N. Y.

NEW YORK & CANADA—Whitehall, N. Y., to Rouse's Pt., N. Y.
Pres.—Isaac V. Baker, Comstocks, N. Y.
Sec. and Treas.—Jas. C. Hartt, New York.

NEW YORK CENTRAL & HUDSON RIVER—New York City to Buffalo, N. Y. 993.29 miles. Std. G.
Pres.—J. H. Rutter, Grand Central Depot, New York.
First Vice Pres.—C. C. Clarke, Grand Central Depot, New York.
Second Vice Pres.—Hon. C. M. Depew, Grand Central Depot, New York.
Gen. Traffic Mgr. and Third Vice Pres.—Horace J. Hayden, Grand Central Depot, New York.
Asst. to Pres.—J. Tillinghast, Grand Central Depot, New York.
Gen. Supt.—J. M. Toucey, Grand Central Depot, New York.
Chief Eng.—Charles H. Fisher, Albany, N. Y.
Asst. Chief Engs.—Geo. F. Boulard, Grand Central Depot, New York; R. L. Huntly, Rochester, N. Y.
Resident Eng.—Geo. F. Boulard, Grand Central Depot, New York.
Sec.—E. D. Worcester, Grand Central Depot, New York,
Treas.—E. V. W. Rossiter, Grand Central Depot, New York.
Compt.—I. P. Chambers, Grand Central Depot, New York.
Gen. Pass. Agt.—C. B. Meeker, Grand Central Depot, New York
Pass. Agt.—E. J. Richards, Grand Central Depot, New York.
Gen. Bag. Agt.—S. McCully, Grand Central Depot, New York

Gen Freight Agt.—E. Clark, Jr.,
Grand Central Depot, New York.
Asst. Gen. Freight Agt.—S. Goodh. .,
Grand Central Depot, New York.
Pur. Agt.—Chas. Reed,
Grand Central Depot, New York.
Supt. Motive Power—Wm. Buchanan,
Grand Central Depot, New York.
Mast. Mechs.—John Ortton, West Albany, N.Y.; A. Gould, East Buffalo, N. Y.; S. L. White, Syracuse, N. Y.
Supts. Car Department—L. Garey, Grand Central Depot, New York; L. Packard, West Albany, N. Y.; Peter Smith, East Rochester, N. Y.; E. E. Chamberlain, East Albany, N.Y.
Mast. Car Builders—D. Hoit, West Albany, N. Y.; C. H. Burchard, East Rochester, N. Y.; E. A. Olmstead, East Buffalo, N. Y.
Div. Supts.—C. M. Bissell, Hudson River Division, New York; Z. C. Priest, Little Falls, N. Y.; G. H. Burrows, Buffalo, N. Y.
Asst. Div. Supts.—J. H. Phyfe, New York; F. H. Phillips, Little Falls, N.Y.; Henry Gould, Buffalo, N. Y.
Gen. Road Master—W. D. Otis,
East Albany, N. Y.
Road Masters—J. Tator, White Plains, N. Y.; J. Milmine, Schenectady, N. Y.; A.W.Eggleston, Poughkeepsie, N. Y.; J. Edwards, St. Johnsville, N. Y.; G. F. Angel, Utica, N. Y.; M. Burns, Batavia, N. Y.; A. L. Weston, Rochester, N. Y.; M. J. Wilder, Buffalo, N. Y.; B. Bennett, O. W. Clough, Syracuse, N. Y.; S. Sult, Batavia, N. Y.

NEW YORK, CHICAGO & ST. LOUIS—Buffalo, N. Y., to Chicago, Ill., 512.54 miles. Std. G.
Pres.—W. K. Vanderbilt, New York.
Vice Pres.—D. W. Caldwell, Cleveland, O.
Gen. Mgr.—Lewis Williams, "
Chief Eng.—J. A. Latcha, Cleveland.
Div. Engs.—W. McK. Pardee, West Division, Chicago, Ill.; J. M. Richardson, Eastern Division, Cleveland, O.
Sec. and Treas.—F. W. Vanderbilt, New York.
Aud.—J. P. Curry, Cleveland, O.
Gen. Pass., Ticket and Bag.Agt.—B. F. Horner, Cleveland.
Gen. Freight Agt.—G. B. Spriggs, "
Supt. Motive Power—John Mackenzie, "
Div. Supts.—A. H. Evans, Western Division, Chicago, Ill.; G. H. Kimball, Eastern Division, Cleveland, O.
Supvs—J. H. Collopy, Bellevue, O.; J. W. Murphy, Stony Island, Ill., Western Division; O. Crossly, Cleveland, O.; S. W. Marshall, Conneaut, O.; John Shanley, Buffalo, N. Y., Eastern Division.
Div. Master Mechs.—W. H. Lewis, Stony Island, Ill.; E. A. Miller, Conneaut, O.
Foremen of Loco. Repairs—Caleb Gray, Stony Island, Ill.; T. B. Hindel, Conneaut, O.

NEW YORK CITY & NORTHERN—High Bridge, N. Y., to Brewsters, N. Y., 54.6 miles. Std. G.
Pres.—R. M. Gallaway, 71 Broadway, New York.
Recr.—Joel B. Erhardt, " "
Sec. and Treas.—C. Goddard, " "
Gen. Supt. and Pur. Agt.—Frank S. Gannon, High Bridge, N. Y.
Div. Eng.—A. J. Gavett, " "
Aud.—H. K. Batchelor, 71 Broadway, N. Y.
Gen. Pass. and Freight Agt.—H. C. Willets, 71 Broadway, N. Y.
Master of Mach.—T. Miller, High Bridge, N. Y.
Master Car Painter—Charles Smart, High Bridge, N. Y.
Road Master—H. C. Moore, " "
Foremen Car Repairs—Caleb Gray, Stony Island, Ill.; C. Tatgenhorst, Conneaut, O.

NEW YORK & GREENWOOD LAKE—Jersey City, N. J., to N. Y. State Line, 53 miles. Std. G.
Pres.—A. S. Hewitt, 17 Burling Slip, New York.
Vice Pres.—Robert Harris,
N. Y., L. E. & W. offices, New York.
Supt. and Road Master—Stephen Smith,
1 Pavonia ave., Jersey City.
Treas.—Tappen Bowne,
N. Y., L. E. & W. offices, New York.
Master Mech. and Car Painter—F. A. Stinard, Pompton Junction, N. J.

NEW YORK ELEVATED—36.83 miles.
Pres.—Jay Gould.
Sec. and Treas.—D. W. McWilliams, New York.

NEW YORK & HARLEM—New York City to Chatham, N. Y., 187.71 miles.
Pres.—W. H. Vanderbilt.
Treas.—E. V. W. Rossiter, New York.

NEW YORK, LACKAWANNA & WESTERN—Binghamton, N. Y., to International Bridge, N. Y., 207.23 miles.
Pres.—Sam. Sloan.
Treas.—Arthur D. Chambers.
Sec.—Fred. F. Chambers.
Supt.—Wm. F. Hallstead.

NEW YORK, LAKE ERIE & WESTERN—Jersey City, N. J., to Dunkirk, N. Y., 1,628.93 miles. Std. G.
Pres.—John King, Jr., New York City.
Vice Pres.—E. S. Bowen, New York; S. M. Felton, Jr., New York.
Gen. Supt.—B. Thomas, New York.
Consult. Eng.—O. Chanute, "
Sec.—A. R. MacDonough, "
Treas.—Edw. White, "
Compt.—Stephen Little, "
Aud.—A. J. McDowell, "
Gen. Pass. and Ticket Agt.—John N. Abbott, New York.
Traffic Mgr.—R. C. Vilas, "
Supt. Telg.—W. J. Holmes, "
Supt. Motive Power and Mach.—F. M. Wilder, Susquehanna, Pa.
Div. Master Mechs—J. H. Vreeland, Jersey City, N. J.; J. Van Vechten, Port Jervis, N. Y.; V. Blackburn, Susquehanna, Pa.; J. Haw-

thorne, Hornellsville, N. Y.; Geo. B. Ross, Buffalo, N. Y.
Foremen Car Repairs—J. N. Mileham, Jersey City; D. B. Goodell, Elmira, N. Y.; M. Wilder, Buffalo, N. Y.
Div. Supts.—E. O. Hill, Jersey City; E. Van Etten, Port Jervis, N. Y.; R. B. Cable, Elmira, N. Y.; W. B. Coffin, Hornellsville, N. Y.; W. J. Murphy, Buffalo; C. A. Brunn, Buffalo.
Road Masters—R. P. Staats, Jersey City; G. W. Bartlett, Port Jervis; W. B. Parsons, Jr., Elmira; L. H. Thompson, Hornellsville, N. Y.; W. H. Starr and J. M. Larned, Buffalo.

NEW YORK, LAKE ERIE & WESTERN—Crawford Junc. to Johnsburg, New York, 29.92 miles.
Treas.—B. W. Spencer.
Sec.—A. R. Macdonough, New York.

NEW YORK & LONG BRANCH — 38¼ miles. Std. G.
Pres.—Hon. Henry S. Little, 119 Liberty st., New York.
Act. Supt. and Pur. Agt.—H. H. Nieman, Long Branch, N. J.
Res. Eng.—L. D. Bruyn, Red Bank, N. J.
Sec.—Samuel Knox, 119 Liberty st., New York.
Treas.—Hon. Anthony Reckless, 119 Liberty st., New York.
Aud.—Thomas D. Maurer, Long Branch, N. J.
Track Master—W. H. Marshall, Red Bank, N. J.

NEW YORK & NEW ENGLAND—471.19 miles. Std. G.
Pres.—Eustace C. Fitz, Boston, Mass.
Recr.—Chas. P. Clark, "
Chief Eng.—L. B. Bidwell, "
Asst. to Recr.—J. W. Perkins, "
Treas.—G. B. Phippen, "
Aud.—H. M. Kochersperger, "
Gen. Pass. Agt.—A. C. Kendall, "
Gen. Freight Agt.—G. H. Williams, "
Pur. Agt.—W. W. McKim, "
Master Mechs.—Geo. E. Boyden, Norwood Central, Mass.; E. M. Humstone, Hartford, Conn.; W. A. Stone, Norwich, Conn.
Master Car Builder—E. E. Pratt, Norwood Central, Mass.
Master Car Painter—E. L. Felting, " "
Div. Supts.—W. H. Turner, Boston, Mass.; E. Holbrook, Hartford, Conn.; C. H. Platt, Fishkill on Hudson, N. Y.; L. W. Palmer, Providence, R. I.; P. St. M. Andrews, Norwich, Conn.; E. H. Tucker, Needham, Mass.
Supvs.—C. R. Shepard, Franklin, Mass.; G. E. Daggett, Willimantic, Conn.; W. L. Derr, Needham, Mass.; W. H. Van Frank, Hartford, Conn.; Thomas Brennan, Danbury, R. I.; H. N. Hammond, Providence, R. I.; David Toomey, Norwich, Conn.

NEW YORK, NEW HAVEN & HARTFORD—Williamsbridge, N. Y., to Springfield, Mass., 334.83 miles. Std. G.
Pres.—Geo. H. Watrous, New Haven, Conn.
Vice Pres.—E. M. Reed, New York.
Treas.—W. L. Squire, "
Aud.—S. C. Fleetwood, "
Sec.—W. D. Bishop, Jr., New Haven, Conn.
Gen. Pass. and Gen. Ticket Agt.—C. T. Hempstead, New York.
Gen. Freight Agt.—Chas. Rockwell, New Haven, Conn.
Chief Eng.—F. S. Curtis, New York.
Pur. Agt.—R. N. Dowd, New Haven, Conn.
Master Mechs.—H. Kettendorf, New Haven, Conn.; J. Henney, Jr., Hartford.
Master Car Builder—J. Denver, New Haven, Conn.
Foreman Loco. Repairs—Louis Wiley, Hartford, Conn.
Foreman Car Painters—Geo. E. Snow, "
Supts.—W. H. Stevenson, New York; C. S. Davidson, Hartford; O. M. Shephard, New Haven, Conn.
Road Masters—I. Pressey, Stamford, Conn.; J. C. Clark (Asst.), Stamford, Conn.; J. S. Lane, Hartford, Conn., M. E. Cook, Guilford, Conn.; Thomas Sprague, Middletown, Conn.

NEW YORK, ONTARIO & WESTERN—Oswego, N. Y., to Middletown, N. Y., 422.1 miles. Std. G.
Pres.—Edward F. Winslow, 35 Wall st., New York.
Vice Pres.—Theodore Houston, " " 35 Wall st., New York.
Gen. Mgr.—J. D. Layng, " " 35 Wall st., New York.
Gen. Supt.—James E. Childs, 35 Wall st., New York.
Sec. and Treas.—John L. Nisbet, 35 Wall st., New York.
Aud.—E. J. Winslow, "
Gen. Freight and Pass. Agt.—J. C. Anderson, 24 State st., New York.
Pur. Agt.—Isaac W. Fowler, Middletown, N. Y.
Master Mech.—Edw. Minshull, " "
Div. Supts.—C. W. Bradley, Weehawken, N. Y.; E. Canfield, Middletown, N. Y.; C. W. Lanpher, Norwich, N. Y.
Div. Road Masters—Robert Brock, Haverstraw, N. Y.; John Dicks, Middletown, N. Y.; B. G. North, Walton, N. Y.; M. Finnigan, Norwich, N. Y.

NEW YORK, PENNSYLVANIA & OHIO—Salamanca, N. Y., to Dayton, O., 424.47 miles. Std. G.
Gen. Supt.—Chas. Paine, Cleveland, O.
Chief Eng.—Charles Latimer, "
Asst. Chief Eng.—H. C. Thompson, "
Gen. Agt.—John H. Dynes, "
Treas.—Ed. White, New York.
Asst. Treas.—F. E. Rittman, Cleveland.
Aud.—A. J. McDowell, New York.
Gen. Pass., Ticket and Bag. Agt.—A. E. Clark, Cleveland.
Gen. Freight Agt.—G. G. Cochran, "
Asst. Gen. Freight Agt.—H. C. Hastings, "
Pur. and Fuel Agt.—J. H. Holway, "
Supt. Motive Power and Mach. and Master Car Builder—Wm. Fuller, Cleveland.

Div. Master Mechs.—J. A. Cooper, Meadville, Pa.; N. Wright, Cleveland, O.

NEW YORK, PHILADLEPHIA & NORFOLK—Delmar, Md., to Pocomoke City, Md, 111 miles. Std. G.
Pres.—A. J. Cassatt, Phila, Pa.
Vice Pres.—Wm. H. Patton, "
Supt.—James McConkey, Princess Anne, Md.
Sec. and Aud.—Wm. Carris, Jr., Phila.
Treas.—J. G. Cassatt, "
Gen. Pass. and Freight Agt.—R. B. Cooke, Norfolk, Va.
Master Mech.—Geo. W. Russell, Cape Charles, Va.
Supv.—W. B. Allwine, Pocomoke, Md.

NEW YORK, PITTSBURGH & CHICAGO—Pittsburgh, Pa., to Marion, O., 215 miles. Std. G.
Pres.—Gen. Jas. S. Negley, Pittsburgh, Pa.
Vice Pres.—Thos. P. Simpson, New York.
Supt. and Road Master—Geo. W. Dixon, New Galilee, Pa.
Acting Chief Eng.—F. Hunnings, Pittsburgh.
Sec.—James S. Negley, Jr., "
Treas.—Wm. N. Riddle, "
Aud. and Gen. Pass., Ticket, Freight, and Pur. Agt.—H. T. Hanna, Pittsburgh.
Foreman of Loco. Repairs—H. Norwood, New Galilee, Pa.

NEW YORK, PROVIDENCE & BOSTON—Providence, R. I., to Groton, Conn., 82.73 miles. Std. G.
Pres.—Samuel D. Babcock, New York.
Vice Pres. and Gen. Mgr.—David S. Babcock, New York.
Supt.—J. P. Gardiner, Providence, R. I.
Asst. Supt. and Pur. Agt.—G. F. Ward, Stonington, Conn.
Chief Eng.—E. P. Dawley, Providence, R. I.
Treas. and Sec.—A. R. Longley, Jr., Stonington, Conn.
Aud.—W. D. Basley, " "
Gen. Ticket Agt.—F. B. Noyes, " "
MasterMech.—Geo. H. Griggs, Providence, R. I
Foreman Loco. Repairs—E. H. Spencer, Providence, R. I.
Forman Car Repairs—P. M. Peckham, Auburn, R. I.
Foreman Car Painters—G. O. Nelson, " "
Road Master—F.H.Bradley, West Mystic, Conn.; Assistant, S. A. Wheeler, Providence, R. I.

NEW YORK, SUSQUEHANNA & WESTERN—Marion, N. J., to New York State Line, 146.95 miles. Std. G.
Pres. and Gen. Mgr.—Frederick A. Potts, 93 Liberty st., New York.
Vice Pres.—Alfred Sully, " "
Chief. Eng.—D. H. Wood, " "
Sec.—John P. Rafferty, " "
Treas. and Aud.—Charles V. Ware, 93 Liberty st., New York.
Gen. Pass. and Freight Agt.—I. I. Demarest, 93 Liberty st., New York.
Gen. Bag. and Pur. Agt.—C. T. Demarest, 93 Liberty st., New York.
Master Mech. and Car Builder—W. C. Ennis, Wortendyke, N. J.
Foreman Car Painters—James Brady, "
Asst. Supt.—C. D. McKelvey, Jersey City, N. J.
Road Master—Geo. Smith, Middletown, N. Y.
Foreman Bridges and Buildings—Geo. Bartle, Middletown, N. Y.

NEW YORK, TEXAS & MEXICAN—Rosenberg, Tex., to Brownsville, Tex., 350 miles. Std. G.
Pres.—D. E. Hungerford, Victoria, Tex.
Vice Pres. and Gen. Mgr. and Pur. Agt.—Allen McCoy, Victoria, Tex.
Gen. Cont.—Count J. Telfener, "
Sec.—E. D. Linn, "
Treas.—Col. J. M. Brownson, "
Aud.—M. Sichel, "
Master Mech.—J. G. Conlon, "
Road Master—M. C. Whalen, "

NEW YORK, WINCHESTER & PUTNAM—High Bridge, N. Y., to Brewsters, N. Y., 51 miles.
Pres.—Andrew V. Stout.
Sec.—Calvin Goddard, 71 Broadway N. Y.
Treas.—Jos. Seligman.

NEW YORK, WEST SHORE & BUFFALO—Weekawken, N. J., to Buffalo, N. Y., 472.83 miles. Std. G.
Recrs.—Horace Russell and Theo. Houston. N. Y.
Vice Pres.—Theo. Houston, 15 Broad st., N. Y.
Gen. Mgr.—J. D. Layng, "
Asst. Gen. Supt.—C. D. Gorham, Weehawken, N. J.
Chief Eng.—Walter Katte, 15 Broad st., N. Y.
Sec.—W. E. Edmister, " "
Treas.—F. E. Worcester, " "
Aud.—J. W. Reinhart, " "
Traffic Mgr.—W. P. Robinson, " "
Gen.Pass.Agt.—HenryMonett, 24 State st., N. Y.
Gen. Baggage Agt.—Geo. W. Clymans, Weehawken, N. J.
Asst. Gen. Freight Agt.—B. H. Bail, 24 State st., N. Y.
Pur. Agt.—P. S. Bemis, 15 Broad st., N. Y.
Supt. Motive Power—R. H. Soule, Frankfort, N. Y.
Div.Supts.—J. P. Bradfield, (acting,) Weehauken, N. J.; H. W. Gardiner, Syracuse, N. Y.; D. B. McCoy, Buffalo, N. Y.
Div. Road Masters—Robert Brock, Kingston, N. Y.; F. S. Stevens, Syracuse, N. Y.; J. B. Davis, Buffalo, N. Y.

NEW YORK, WOODHAVEN & ROCKAWAY—(See Long Island).

NIAGRA BRIDGE & CANANDAIGUA—Canandaigua to Suspension Bridge, 100.25 miles.
Pres.—John C. Brown.
Sec.—Hubbard Hendrickson, N. Y. C.

NILES & NEW LISBON—(See N. Y., Pa. & O. R. R. Co.)

NONADAY VALLEY—(See K. C., St. J. & C. B. R. R. Co.)

NORFOLK SOUTHERN—Norfolk, Va., to Edenton, N. C., 74 miles. Std. G.
Pres—William H. Philips, 214 19th st., N. Y.
Vice Pres.—George C. Wood, 66½ Pine st., N.Y.
Gen. Mgr., Aud. and Pur. Agt.—M. K. King, Norfork, Va.
Sec.—E. W. Corliss, 31 Pine st., N. Y.
Treas.—W. G. Dominick, 74 Broadway, N. Y.
Train Master—R. E. Pegram, Berkley, Va.
Gen. Pass. and Freight Agt.—H. C. Hudgins, Norfolk, Va.
Master Mech.—John S. Whitworth, Berkley Va.
Suvp.—A. M. Hawkins, "

NORFOLK & VIRGINIA BEACH—Norfolk, Va., to Virginia Beach, Va., 18 miles. G. 3 ft.
Recer.—R. B. Cooke and C. G. Elliott, Norfolk, Va.
Supt.—T. O. Troy, "
Aud.—A. J. Armstrong, "

NORFOLK & WESTERN—Norfolk, Va., to Bristol, Tenn., 503 miles. G. 5 ft.
Pres.—F. J. Kimball, Phila.
Gen. Supt.—Jos. H. Sands, Roanake, Va.
Compt.—W. G. Macdowell, Phila.
Treas.—G. R. W. Armes, "
Sec.—A. J. Hemphill, "
Auds.—E. E. Portlock, J. W. Coxe, Roanoke.
Div. Supts.—Frank Huger, Lynchburg, Va.; N. M. Osborne, Norfolk, Va.
Supt. Motive Power—Chas. Blackwell, Roanoke, Va.
Chief Eng.—W. W. Coe, " "
Gen. Pass. and Ticket Agt.—A. Pope, " "
Gen. Freight Agt.—C. P. Hatch, " "
Pur. Agt.—W. C. DeArmond, Phila.
Eng. Maint. of Way—G. Hoffman. Lynchburg, Va.

NORTH CAROLINA—Goldsboro, N. C., to Charlotte, N. C., 238.15 miles.
Pres.—T. M. Holt, Haw River, N. C.
Sec. and Treas.—P. B. Ruffin, Company Shops, N. C.

NORTHEASTERN OF GEORGIA—Athens, Ga., to Lula, Ga.; Rabun Gap Junc., Ga. to Tallulah, Ga., 60.8 miles. G. 5 ft.
Pres.—Pope Burrows, Athens, Ga.
Vice Pres.—R. K. Reavis, "
Gen. Supt.—H. R. Bernard, "
Chief Eng.—J. C. Turner, Clarkesville, Ga.
Sec.—E. Hodgson, Athens Ga.
Treas.—R. L. Moss, "
Aud.—A. L. Hull, "
Traffic Mgr.—Sol. Haas, Richmond, Va.
Gen. Pass. Agt.—Mercer Slaughter, "
Gen. Freight Agt.—J. H. Drake, "
Road Master—C. P. Hammond, Atlanta, Ga.
Foreman of Loco. and Car Repairs—E. W. Phelps, Athens, Ga.

NORTHEASTERN—(S.C.) Charleston, S. C., to Florence, S. C., 102 miles. G. 5 ft.
Pres.—A. F. Ravenel, Charleston S. C.
Gen. Mgr.—H. Walters, Balto., Md.
Gen. Supt.—J. F. Divine, Wilmington, N. C.
Traffic Mgr.—Sol Haas, Richmond, Va.
Chief Eng.—B. R. Dunn, Wilmington, N. C.
Sec.—C. Willman, Charleston, S. C.
Treas.—B. S. Rhett, " "
Gen. Aud.—W. A. Riach, Wilmington, N. C.
Gen. Ticket Agt.—P. L. Cleapor, Charleston, S. C.
Gen. Freight and Pass. Agt.—T. M. Emerson, Wilmington, N. C.
Asst. Supt.—W. N. Royall, Charleston, S. C.
Master Mech.—John Bissett, Florence, S. C.
Master Car Builder—W. H. Day, " "
Road Master—G. B. Newcomb, Charleston, S.C.

NORTHERN—West Oakland, Cal., to Martinez, Cal., 194.61 miles. Std. G.
Pres.—W. V. Huntington, San Francisco.
Vice Pres.—Chas. F. Crocker, "
Treas.—E. H. Miller, Jr., "
Sec.—Timothy Hopkins, "

NORTHERN ADIRONDACH.
Pres. and Pur. Agt.—Jno. Hurd, Bridgeport, Conn.
Vice Pres. and Treas.—C. B. Hotchkiss, Bridgeport, Conn.
Gen. Supt., Master Mech. and Road Master—M. Callahan, St. Regis Falls, N. Y.
Sec.—Fred. H. Mills, Bridgeport, Conn
Gen. Pass. and Freight Agt.—A. C. Allison, Moria, N. Y.

NORTHERN & HAMILTON & NORTHWESTERN — Port Dover, Ont., to Allandale, Ont.; Toronto, Ont., to Collingwood, Ont, 381.92 miles. Std. G.
Pres. — Northern, Hon. Frank Smith, Toronto, Can.; Northwestern, John Stuart, Hamilton, Ont.
Gen. Mgr.—Samuel Barker, Toronto, Can.
Supt.—James Webster, "
Sec. and Treas.—Walter Townsend, "
Eng.—Henry Holgate, "
Aud.—James H. Telfer, "
Gen. Pass. and Freight Agt.—Robert Quinn, Toronto.
Pur. and Fuel Agt.—W. C. Schreiber, "
Supt. Motive Power and Mach.—Peter Clark, Toronto.
Foremen Loco. Repairs—James Armitage, Toronto; Wm. Robinson, Hamilton, Ont.
Foreman Car Repairs—M. A. Graham, Toronto.
Foreman Car Painter—Thos. Little, "
Road Masters—Robert Bagnell, Hamilton, Ont.; John Dobson, Allendale, Ont., Can.; Jos. Walker, Allendale, Ont., Can.; Geo. Wilson, Allendale, Can.

NORTHERN OF N. H. — (See Boston and Lowell).

NORTHERN CENTRAL—Baltimore, Md., to Sunbury, Pa., 346.7 miles. Std. G.
Pres.—Geo. B. Roberts, Philadelphia, Pa.
Vice Pres.—Frank Thompson, "
Gen. Mgr.—Chas. E. Pugh, "
Gen. Supt.—Robert Neilson, Williamsport, Pa.
Chief Eng.—Wm. H. Brown, Philadelphia.
Asst. Eng.—L. H. Barker, Baltimore, Md.
Eng. Maint. Way.—A. C. Hippey, Wmsport, Pa.
Sec.—S. W. White, Philadelphia, Pa.
Treas.—Jno. S. Leib, Baltimore, Md.
Aud.—Jas. P. Kerr, "
Gen. Pass. Agt.—Jno. S. Wilson, "
Asst. Gen. Ticket Agts.—E. S. Young, E. S. Harrar, Williamsport, Pa.
Gen. Freight Agt.—Jno. S. Wilson, Baltimore.
Pur. Agt.—A. W. Summer, "
Supt. Motive Power—A. O. Dayton, Williamsport, Pa.
Master Mechs.—Jas. Shroder, Elmira, N. Y.; Jno. S. Funk, Marysville, Pa.; J. M. Coale, Baltimore, Md.
Gen. Foremen Car Repairs—Jno. C. Dyott, Elmira, N. Y.; G. W. Demarast, Baltimore, Md.
Master Carpenters—Jno. Minsker, York, Pa.; S. Smith, Elmira, N. Y.
Foremen Car Painters—Adam A. Nicholl, Baltimore; Eugene Laing, Elmira, N. Y.
Div. Supts.—H. W. Kapp, Baltimore, Md.; A. Walter, Sunbury, Pa.; E. B. Westfall, Williamsport, Pa.; Spencer Meade, Elmira, N. Y.
Supvs.—Jno. Townsend, Lykens, Pa.; H. E. Passmore, York, Pa.; Jerry Bergan, Elmira, N. Y.; Wm. Jendevine, Canandagua, N. Y.; S. N. Gayman, Millersburg, Pa.; Francis Corcoran, Shamokin, Pa.; Frank W. Fite, Baltimore, Md.; C. A. Preston, Baltimore, Md.

NORTHERN R. R. OF NEW JERSEY — Bergen, N.J., to Sparkill, N. Y., 21.28 miles.
Pres.—J. H. Browning, Tenafly, N. J.
Sec. and Treas.—O. A. Roorback, Englewood, N. J.

NORTHERN PACIFIC — 2,453.43 miles. Std. G.
Pres.—Robert Harris, 35 Wall st., N. Y.
Vice Pres. and Gen. Mgr.—T. F. Oakes, St. Paul, Minn.
Asst. Gen. Mgrs. — Eastern Div., J. T. Odell, St. Paul, Minn.; Western Div., J. M. Buckley, New Tacoma, W. T.
Chief Eng.—A. Anderson, St. Paul, Minn.
Asst. Chief Engs. — S. D. Mason, St. Paul, Minn.; V. G. Bogue, Portland, Oregon.
Div. Engs.—F. W. D. Holbrook, Superior, Wis.; J. T. Dodge, Helena, Mont.; J. S. P. Weeks, Missoula, Mont.
Sec.—Samuel Wilkinson, 35 Wall st., N. Y.
Treas.—R. L. Belknap, " "
Aud.—J. A. Barker, " "
Gen. Supt. of Traffic—John Muir, St. Paul, Minn.
Gen. Pass. Agt.—Charles S. Fee, " "
Gen. Bag. Agt.—W. H. Lowe, " "
Asst. Supt. Traffic—Eastern Divs., J. M. Hannaford, St. Paul, Minn.; Western Divs., A. L. Stokes, Portland, Oregon.
Pur. Agt.—J. H. Ames, St. Paul, Minn.
Fuel Agt.—R. P. Thomas, " "
Supt. Motive Power and Mach.—G. W. Cushing, St. Paul, Minn.
Div. Master Mechs.—Dakota Div., C. C. Quinn, Fargo, D. T.; Missouri Div., E. F. Doran, Mandon, D. T.; Yellowstone Div., S. L. Bean, Glendive, Mont.; Montana Div., J. C. Memro, Livingstone, Mont.; Rocky Mountain Div., G. S. LaReve, Missoula, Mont.; Idaho Div., J. Evans, Sprague, W. T.; Pacific Div., H. H. Warner, New Tacoma, W. T.
Div. Supts.—St. Paul & Minnesota Divs., M. C. Kimberly, Brainerd, Minn.; Dakota & Missouri Divs., J. M. Graham, Fargo, Dak.; Yellowstone & Montana Divs., S. R. Anslie, Glendive, Mont.; Rocky Mountain Div., J. B. Cable, Missoula, Mont.; Idaho Div., S. R. Henry, Sprague, W. T.; Pacific & Cascade Divs., Otis Sprague, Portland, Oregon.
Road Masters—Jerry Behan, Jamestown, D. T.; C. D. Short, Jamestown, D. T.; A. P. Rowe, Fargo, D. T.; Hugh McNanny, Jamestown, D. T.; Wm. Ray, Mandan, D. T.; M. P. Wyman, Glendive, Mont.; J. D. Tinn, Riverside, Mont.; P. Gogerty, Billings, Mont.; Jas. Schofield, Livingston, Mont.; M. Warner, Bedford, Mont.; C. S. Prowell, Missoula, Mont.; J. F. Mangan (Asst.), Missoula, Mont.; R. C. Bell, Missoula, Mont.; J. B. McMahon, Missoula, Mont.; Paul Murn, Sprague, W. T.; Owen Woods, Ainsworth, W. T.; W. M. Dean, Cheney, W. T.; J. E. Thielsen, New Tacoma, W. T.

NORTHERN PACIFIC, FERGUS AND BLACK HILLS—Wadena, Minn., (N. P. R. R.), to end of track, 117.1 miles.
Pres.—Robt. Harris, New York City.
Sec.—Jas. B. Williams, " "
Treas.—C. T. Barney, " "

NORTHERN PACIFIC COAST—Sancelito Cal., to Duncan's Mills, Cal., 79.75 miles. G. 3 ft.
Pres.—J. D. Walker, San Francisco, Cal.
Gen. Supt.—David Nye, " "
Asst. Gen. Supt.—E. H. Shoemaker, San Rafael, Cal.
Gen. Freight and Pur. Agt—W. F. Russell, San Francisco, Cal.
Sec., Aud., Gen. Pass. and Ticket Agt.—F. B. Latham, San Francisco, Cal.
Fuel Agt. and Road Master—Hugh Foy, San Rafael, Cal.
Master Mech.—J. Fowler, Sancelito, Cal.

NORTHERN PENNSYLVANIA — Philadelphia to Bethlehem, Pa., 176.8 miles.
Pres.—Franklin A Comly,
Treas.—Jno. S. Wise, 407 Walnut st., Phila.

NORTH SHORE—Quebec, Que., to Montreal, Que., 209 miles. Std. G.
Pres.—L. A. Senecal, Montreal, P. Q.
Vice Pres.—John McDougall, "
Gen. Mgr.—W. Wainwright, "

Gen. Supt. Traffic Mgr., Pur. Agt., etc.—A. Davis, Quebec, P. Q.
Road Master.—N. Walsh, Three Rivers, P. Q.
Bridge Inspector—N. Mons, " "
Sec.—R. Wright, Montreal.
Aud.—T. B. Hawson, "
Foreman Loco. Repairs—H. Lym, Hochelaga, P. Q.

NORTH & WEST BRANCH — Catawissa, to South Wilkesbarre, Pa., 49.27 miles.
Pres.—D. J. Waller, Bloomsburgh, Pa.
Treas.—Taber Ashton, Phila, Pa.

NORTHWESTERN OF NORTH CAROLINA — Salem Junc., N. C., to Salem, N. C., 25.2 miles.
Pres.—A. S. Buford.
Treas.—W. E. Turner, Richmond, Va.

NORTHWESTERN OHIO—Toledo Junc., O., to Toledo, O., 79.98 miles. Std. G.
Pres.—Thos. D. Messler, Pittsburgh, Pa.
Treas.—Jno. E. Davidson, "
Sec.—Frank Janes, Toledo, O
Asst. Sec.—S. B. Liggett, Pittsburgh

NORWICH & WORCESTER — Norwich, Conn., to Worcester, Mass., 66.48 miles Std. G.
Pres.—F. H. Dewey, Worcester, Mass
Treas.—Geo. L. Perkins, Norwich, Conn
Sec.—Ed. T. Clapp, "
Mang. Agt.—P. St. M. Andrews, "
Supv.—David Toomey, "
Master Mech.—W. A. Stone, "
Aud.—M. M. Whittemore "
Gen. Freight Agt.—G. A. Harris, "

NOVA SCOTIA—New Glascow, N. S., to Gut of Canso, N. S., 79.75 miles. Std. G.
Gen. Mgr.—C. A. Scott, New Glasgow, N. S.
Acc'nt. and Aud.—G. Grant Bulley, "
Gen. Pass. and Freight Agt.—F. D. Laurie, New Glasgow,
Mech'l. Supt.—M. F. Punch, "
Road Master—A. B. Gray, "

O.

OCMULGEE & HORSE CREEK — Ocmulgee River, Ga., to Pine Woods, 33 miles. Principal office, Eastman, Dodge Co., Ga.

OGDENSBURG & LAKE CHAMPLAIN—Ogdensburg, N. Y., to Rouse's Pt., N. Y., 118 miles. Std. G.
Pres.—L. Millis, 260 Washington st., Boston, Mass.
Treas.—H. A. Church, 95 Milk st., Boston.
Gen. Mgr. and Pur. Agt.—A. A. Gaddis, Ogdensburg, N. Y.
Sec.—Geo. T. Childs, St. Albans, Vt.
Gen. Bag. Agt.—J. H. Gracy, Ogdensburg,
Gen. Freght and Pass. Agt.—Frank Owen, Ogdensburg.
Master Mech.—Abraham Klohs, Malone, N. Y.
Foreman Car Repairs—A. F. Dailey, Ogdensburg,
Road Master—H. S. Leach, Malone, N. Y.

OGDENSBURG & MORRISTOWN — Morristown to Ogdensburg, N. Y., 12.56 miles.
Pres.—Geo. B. Phelps,
Treas.—Geo. H. Sherman, Watertown, N. Y.

OHIO CENTRAL — Toledo, O., to Junc. C.H. & V.R.R., 352.64 miles. Std. G.
Recr.—J. E. Martin, Toledo, O.
Gen. Supt.—T. M. Peelar, Bucyrus, O.
Mgr. Coal Dept—G. G. Hadley, Toledo, O.
Chief Eng.—C. Buxton, "
Treas.—W. H. Andrews, "
Gen. Pass., Ticket and Freight Agt.—Hudson Fitch, Toledo, O.
Pur. Agt.—F. W. Stewart, Toledo, O.
Master Mech. and Car Builder—J. B. Morgan, Bucyrus, O.
Road Master—G. R. Campbell, Bucyrus, O.
Aud.—W. H. Andrews, Toledo, O.

OHIO & MISSISSIPPI—Cincinnati, O., to E. St. Louis, Ill., 616.25 miles. Std. G.
Pres. and Gen. Mgr.—W. W. Peabody, Cincinnati, O.
Chief Eng.—W. B. Ruggles, "
Sec.—W. M. Walton, 31 Pine st., New York.
Treas.—C. S. Stone, Cincinnati, O.
Aud.—H. C. Averill, "
Gen. Pass. and Ticket Agt.—W. B. Shattuc, Cincinnati, O.
Gen. Freight Agt.—W. Duncan, St. Louis, Mo.
Gen. Bag. Agt.—W. I. Robinson, Cincinnati, O.
Pur. and Fuel Agt.—G. E. Atwood, "
Master Mech.—J. H. Setchel, "
Div. Master Mechs.—Arthur Donaldson, Vincennes, Ind.; J. W. Stokes, Pana, Ill.; John Thumser, Seymour, Ind.
Master Car Builder—J. P. Coulter, Cochran, Ind.
Master Car Painters—A. N. Bradley, Cochran, Ind.; G. A. Burrell, Pana, Ill,; Jos. Hertzel, Seymour, Ind.; R. M. Schroeder, Vincennes, Ind.
Div. Supts.—C. B. Cole, Seymour, Ind.; C. M. Stanton, St. Louis, Mo.
Supt. Buildings and Bridges—H. M. Hall, Olney, Ill.
Gen. Road Master—H. D. Hanover, Aurora, Ind.
Road Masters—Thos. Adamson, Aurora, Ind.; Thos. Welsh, Mitchell, Ind.; D. Mahoney,

Olney, Ill.; John Phillips, Lebanon, Ill., P. K. Roach, Pana, Ill.; H. Clark, Flora, Ill.; D. Cassion, North Vernon, Ind.

OHIO RIVER—Wheeling to Pt. Pleasant, W. Va., 170.5 miles. Std. G.
Pres.—Dan. R. Neal, Parkersburgh, W. Va.
Sec. and Treas.—Wm. N. Chancellor, "

OHIO SOUTHERN—Springfield, O., to Wellston, O., 129.3 miles. Std. G.
Pres.—Alfred Sully, New York City.
Vice Pres, and Treas.—Henry Graves, "
Gen. Mgr.—C. E. Henderson, Indianapolis, Ind.
Supt.—D. R. Ennis, Springfield, O.
Eng. Bridges and Buildings—M. M. Defrees, Indianapolis, Ind.
Sec.—Wilberforce Sully, New York City.
Aud.—G. L. Dickenson, Indianapolis, Ind.
Gen. Ticket Agt.—H. M. Bronson, "
Gen. Bag. Agt.—John A. Glover, "
Gen. Freight Agt.—Ford Woods, Springfield, O.
Pur. Agt.—H. C. Norton, Indianapolis, Ind.
Master Mech.—B. Warren, "
Div. Master Mech.—A. J. Sanborn, Springfield, O.
Road Master—N. W. Beyea, "

OHIO CITY & RIDGWAY—Oil City, Pa., to Ridgway, Pa., 90 miles. Std. G.
Pres.—J. W. Jones, Phila., Pa.
Sec. and Treas.—J. R. Trimble, "
Gen. Mgr.—Ensign Bennett, Buffalo, N. Y.
Principal office, 242 S. 3d st., Phila.

OLD COLONY—468.32 miles. Std. G.
Pres.—C. F. Choate, Boston, Mass.
Vice Pres.—F. L. Ames, "
Gen. Mgr.—J. R. Kendrick, "
Chief Eng.—G. S. Morrill, "
Treas.—J. M. Washburn, "
Chief Clerk—A. W. Adams, "
Gen. Pass. and Ticket Agt.—J. Sprague, Jr., Boston, Mass.
Gen. Bag. Agt.—E. F. Wetherill, "
Gen. Freight Agt.—S. C. Putman, "
Pur. Agt.—R. W. Husted, "
Supt. Motive Power—J. N. Lauder, "
Master Car Builder—Samuel Stevens, "
Master Car Painter—Samuel Brown, "
Div. Supts.—J. H. French, Main Line Division, Boston; S. A. Webber, Northern Division, Fitchburg, Mass.; C. H. Nye, Cape Cod Division, Hyannis, Mass.
Div. Road Masters—O. F. Jerald, Boston.; J. D. Thayer, Fall River, Mass.; B. Braley, Bridgewater, Mass.; J. W. Drew, Hyannis, Mass.; F. M. Sargent, South Framington, Mass.; E. H. Bryant, New Bedford, Mass.

OLD ORCHARD BEACH—(See Boston & Maine).

OLEAN, BRADFORD & WARREN—22.96 miles.
Sec. and Treas.—F. S. Buel, Buffalo, N. Y.

OLYMPIA & CHEHALIS VALLEY—G. 3 ft. Miles operated, 19.
Pres.—John W. Sprague, New Tacoma, Wash. Ter.
Vice Pres.—Robert Wingate, New Tacoma, Wash. Ter.
Second Vice Pres. and Supt.—Otis Sprague, Olympia, Wash. Ter.
Sec.—J. R. Hayden, "
Treas.—F. R. Brown. Tenino, Wash. Ter.

OMAHA, NIOBRARA & BLACK HILLS—Columbus, Neb., to Norfolk, Neb., 84.26 miles.
Pres.—Sidney Dillon.
Vice Pres.—Elisha Atkins.
Sec. and Treas.—Henry McFarland.
Transfer Agt.—Jas. G. Harris, Boston, Mass.

OMAHA & REPUBLICAN VALLEY—Valley Station, Neb., to Stromsburg, Neb., 186.77 miles.
Pres.—Sidney Dillon.
Vice Pres.—Elisha Atkins.
Sec. and Treas.—Henry McFarland.
Franfer Agt.—Jas. G. Harris, Boston, Mass.

ONTARIO & QUEBEC—Toronto, Ont., to St. Thomas, Ont., 184.3 miles. Std. G.
Pres.—E. B. Osler, Toronto, Can.
Gen. Supt.—Wm. Whyte, "
Chief Eng.—A. L. Hertzberg, "
Div. Eng.—Wm. Spry, "
Sec. and Treas.—H. E. Suckling, "
Aud.—Richard Jones, "
Gen. Pass. and Ticket Agt—D. McNicoll, "
Gen. Freight Agt.—E. Tiffin, "
Pur. Agt.—John McNab, "
Mech. Supt.—D. Preston, "
Master of Trans.—James Wilson, "
Road Masters—John Gordon, Toronto; H. Bagnall, Orangeville, Can.

ONTONAGON & BRULE RIVER—Ontonagon, Mich., to Brule River, 80 miles. Std. G.
Pres.—Ezra Rust, Saginaw, Mich.
Vice Pres.—Angus Smith, Milwaukee, Wis.
Treas.—Guido Pfister, "
Sec.—E. Mariner, "
Gen. Agt.—H. N. Smith, Ontonagon, Mich.
Chief Eng.—C. S. Woodward, Green Bay, Wis.

OREGON & CALIFORNIA—East Portland, Or., to Fort Lane, Or., 432.2 miles. Std. G.
Recr., Mgr. and Acting Eng.—R. Koehler, Portland, Or.
Pres.—Geo. H. Hopkinson, London, Eng.
Vice Pres.—C. E. Bretherton, "
Gen. Supt.—J. Brandt, Portland, Or.
Supt. of Traffic—John Muir, St. Paul. Minn.
Asst. Supt. of Traffic—A. L. Stokes, Portland, Or.
Gen. Pass. and Ticket Agt.—Chas. S. Fee, St. Paul, Minn.
Chief Eng. of Construction—Charles A. F. Morris, Portland, Or.

Sec.—W. W. Bretherton, Portland, Or
Gen. Agt. Pass. Dept.—E. P. Rogers, Portland, Or.
Pur. Agt.—W. T. Bodley. "
Master Mech.—A. Brandt, "
Supt. Bridges—T. DeClarke, "
Road Masters—J. H. Wait, and H. Happersett, Portland, Or.; M. Volk, Myrtle Creek, Or.; J. T. Galvin, Grant's Pass, Or.

OREGON PACIFIC—Yaquina Bay, Or., to Boise City, Idaho, 600 miles.
Pres.—T. E. Hoog, Corvallis, Or.
Sec.—Zephin Job, "
Treas.—G. T. M. Davis, New York.

OREGON RAILWAY & NAVIGATION—592 miles. Std. G.
Pres.—Elijah Smith, New York.
Vice Pres. and Mgr.—C. H. Prescott, Portland, Or.
Gen. Freight and Pass. Agt.—A. L. Stokes, Portland, Or.
Supts. Ocean Div.—Messrs. Goodall, Perkins & Co., San Francisco, Cal.
Chief Eng.—H. Thielsen, Portland, Or.
Asst. Chief Eng.—H. B. Thielsen, "
Chief Eng. River Div.—John Gates, "
Compt.—C. J. Smith, "
Sec.—Theodore Wygant, Portland, Or.
Asst. Sec.—T. H. Tyndale, Mills' Building, New York City.
Treas.—F. R. Nource, Boston.
Aud. and Gen. Ticket Agt.—J. H. Huddleson, Portland, Or.
Gen. Bag. Agt.—Martin Winch, "
Pur. Agt.—J. M. Drake, "
Supt. Railway Div.—H. L. Rowe, "
Supt. River and Sound Divs.—Frank T. Dodge, Portland, Or.
Master Mech.—C. C. Hobart, The Dallas, Or.
Master Car Builder—Chas. A. Phipps. "
Master Car Painter—H. J. Fisher, Portland, Or.
Master Carpenter—John Holland, "
Road Master—G. R. Shaw. "

OREGON SHOT LINE—Granger, Wy., to Junc. with Oregon Ry., 539 miles. Std. G.
Pres.—Sidney Dillon, New York.
Vice Pres.—Elisha Atkins, Boston.
Sec. and Treas.—Jas. M. Ham, New York.
Asst. Sec. and Treas.—Henry McFarland, Boston.
Transfer Agts.—H. J. Worcester, New York; Jas. G. Harris, Boston.

OSWEGO & ROME—Richland to Oswego, 309.8 miles.
Pres.—Chas. Parsons, New York.
Treas.—J. A. Lawyer, Watertown, N. Y.
Sec.—Elisha M. Moore, Oswego, N. Y.

OSWEGO & SYRACUSE—Syracuse, N. Y., to Oswego, N. Y., 56.68 miles.
Pres.—Samuel Sloan.
Treas.—Fred. H. Gibbens.
Sec.—Fred. F. Chambers, New York.
Supt.—W. B. Phelps, Oswego, N. Y.

OTTUMWA & KIRKVILLE—Ottumwa to Kirkville, Ia., 13 miles. Std. G.
Pres.—T. J. Potter, Chicago, Ill.
Vice Pres. and Gen. Mgr.—H. L. Waterman, Kirkville, Ia.
Sec.—T. S. Howland, Burlington, Ia.
Treas.—A. C. Hatfield, Kirkville, Ia.
Principal office and address, Ottumwa, Ia.

OWENSBORO & NASHVILLE—(See Louisville & Nashville).

OXFORD & HENDERSON—Oxford, N. C., to Henderson, N. C., 12 miles. Std. G.
Pres.—A. H. A. Williams, Oxford, N. C.
Gen. Supt.—James A. White, "
Chief Eng., Master Mech. and Foreman Car Repairs—James E. Lawrence, Oxford, N. C.
Treas.—W. B. Gulick, "
Road Master—J. J. W. Harris, "

P.

PACIFIC COAST—Port Hartford, Cal., to Los Almos, Cal., 63.8 miles. G. 3 ft.
Pres.—Chas. Goodall, San Francisco, Cal.
Mgr. and Pur. Agt.—J. M. Fillmore, San Luis Obispo, Cal.
Sec.—Edwin Goodall, San Francisco, Cal.
Treas.—Goodall, Perkins & Co., San Francisco. Cal.
Aud.—Geo. F. Gamble, San Luis Obispo, Cal.
Asst. Gen. Ticket, Baggage and Freight Agt.—W. R. Price, San Luis Obispo, Cal.
Master Mech. and Car Builder—J. Walsh, San Luis Obispo, Cal.

PAINESVILLE & YOUNGSTOWN—Fairport, O., to Youngstown, O., 62.3 miles. G. 3 ft.
Recr.—Ralph K. Paige, Painesville, O.
Supt. and Gen. Pur. Agt.—J. A. Newcome, Painesville, O.
Foreman of Car Repairs—I. E. Magargil, Painesville, O.
Road Master—Michael Lynch, "

PANAMA—Aspinwall (Atlantic), U.S.C., to Aspinwall (Pacific), U.S.C., 47.5 miles. G. 5 ft.
Pres.—J. G. McCullough, 37 Wall st., New York.
Vice Pres.—R. W. Thompson.
Gen. Supt.—J. J. Tribe, Aspinwall, U. S. C.
Sec., Treas. and Pur. Agt.—E. Z. Penfield, 37 Wall st., New York.
Master Mech.—D. P. Wright, Aspinwall, U.S.C.
Road Master—C. E. Spaulding, "

Prin. office and address, Mills Building, New York.

PARKERSBURG BRANCH—Grafton, W. Va., to Parkersburgh, W. Va., 133 miles.
Pres.—S. Spencer.
Treas.—J. W. Kines, Baltimore, Md.

PASSAIC & DELAWARE—Summit, N. J., to Bernardsville, N. J., 13.99 miles.
Pres.—Samuel Sloan, 26 Exchange place, New York.

PASSUMPSIC—G. 4-8½. Miles, 145.
Pres. and Pur. Agt.—Emmons Raymond, 95 Milk st., Boston.
Vice Pres.—W. K. Blodgett, "
Gen. Supt.—H. E. Folsom, Lyndonville, Vt.
Sec.—H. C. Cleveland, Coventry, Vt.
Treas.—N. P. Lovering, 95 Milk st., Boston.
Gen. Pass. and Ticket Agt.—N. P. Lovering, Jr., Lyndonville, Vt.
Gen. Baggage Agt.—I. W. Cunningham, "
Gen. Freight Agt.—W. J. Willard, "
Fuel Agt.—E. E. Cleveland, "
Master Mech.—I. L. Brigham, Lyndonville, Vt.
Master Car Builder—L. F. Woodward, "
Master Car Painter—L. Davis, "
Road Master—W. G. Roberts, "

PATERSON & HUDSON—Jersey City to Patterson, N. J., 14.97 miles.
Pres.—J. S. Rogers, New York.
Treas.—Robt. Hughes, Paterson, N. J.

PATERSON, NEWARK & NEW YORK—Paterson to Newark, N. J., 10.91 miles.
Pres.—C. Parker, Newark, N. J.

PATERSON & RAMAPO—Paterson, N. J., to New York State Line, 15.2 miles.
Pres.—J. S. Rogers, New York City.
Treas.—Jno. Hopper, Paterson, N. J.

PEACH BOTTOM—Oxford, Pa., to Dorsey's, Pa., 20 miles. G. 3 ft.
Pres.—C. W. Leavitt, 161 Broadway, New York.
Treas.—Robt. B. Patterson, Oxford, Pa.
Supt. and Sec.—Benj. B. Newton, Oxford, Pa.
Asst. Supt. and Aud.—G. Renie Dickey, "
Foreman of Loco. Repairs—Joseph Hudders, Oxford, Pa.
Asst. Supv.—John McMichael, Hopewell Cotton Works, Pa.

PEMBERTON & HIGHTSTOWN—Pemberton to Hightstown, N. J., 24.47 miles.
Pres.—Nath. S. Rue, Cream Ridge, N. J.

PEMIGEWASSET VALLEY—Plymouth, N. H., to North Woodstock, N. H., 20 miles Std. G.
Pres.—J. T. Vose, Boston, Mass
Sec. and Treas.—S. N. Bell, Manchester, N. H.

PENNSYLVANIA — Philadelphia, Pa., to Pittsburgh, Pa., 313.53 miles. Std. G.
Pres.—George B. Roberts, Philadelphia.
Vice Pres.—First, Edmund Smith, Philadelphia; Second, Frank Thomson, Philadelphia; Third, J. N. DuBarry, Philadelphia; Fourth, John P. Green, Philadelphia.
Gen. Mgr.—Charles E. Pugh, Philadelphia.
Treas.—John D. Taylor, "
Sec.—John C. Sims, Jr., "
Compt.—Robert W. Downing, "
Asst. Compt. and Aud. Pass. Receipts—M. Riebenack, Philadelphia.
Aud. Freight Receipts—George M. Taylor, Philadelphia.
Aud. Disbursements—Thomas R. Davis, "
Gen. Freight Agt.—John S. Wilson, "
Gen. Pass. Agt.—James R. Wood, "
Gen. Baggage Agt.—T. J. McWade, "
Chief Eng.—Wm. H. Brown, "
Consulting Eng.—W. Hasell Wilson, "
Eng. Bridges and Buildings—Joseph M. Wilson, Philadelphia.
Gen. Supt. Motive Power Lines East of Pittsburgh and Erie—Theo. N. Ely, Altoona, Pa.
Gen. Supt. Trans.—S. M. Prevost.
Pur. Agt.—Enoch Lewis, Philadelphia.
Div. Supts—Robt. E. Pettit, Gen. Supt. Pennsylvania Railroad Div., Altoona; Thos. Gucker, Philadelphia; J. B. Hutchinson, York; O. E. McClellen, Harrisburg; James Reed, Altoona; Robert Pitcairn, Pittsburgh; A. P. Kirkland, Blairsville; S. S. Blair, Tyrone; Wm. M. Phillips, Lewistown, Pa.; Robt. L. Holliday, Bedford, Pa.; D. M. Watt, Pittsburgh; F. Wolcott Jackson, Gen. Supt. United Railroads of New Jersey Div., Jersey City; Jos. Crawford, Jersey City; L. S. Buckelew, Camden; J. A. Anderson, Supt. Belvidere Div., Lambertville, N. J.; R. Neilson, Gen. Supt. Philadelphia & Erie Railrod Div., Williamsport, Pa.; E. B. Westfall, Williamsport; Alfred Walter, Sunbury, Pa.; Thos. A. Roberts, Renovo, Pa.; J. W. Reynolds, Erie, Pa.
Supts. of Motive Power—Frank L. Sheppard, Altoona, Pa.; H. S. Hayward, Jersey City, N. J.; A. O. Dayton, Williamsport, Pa.
Master Mechs.—H. D. Garrett, West Philadelphia, Pa.; A. O. Baker, Columbia, Pa.; E. L. Caum, Harrisburg, Pa., Isaiah Paxton, Lewistown, Pa.; Wm. H. Carothers, Tyrone, Pa.; Geo. W. Strattan, Altoona, Pa.; Redinger Zane, Conemaugh, Pa.; W. B. Norris, Blairsville, Pa.; D. O. Shaver, Twenty-eighth st., Pittsburgh, Pa.; L. A. Bosdevex, Meadows, N. J.; Thomas Kerr, South Amboy, N. J.; W. McAllister, Camden, N. J.; Richard McDowell, Lambertville, N. J.; H. Canfield, 294 Washington street, Hoboken, N. J.; Wm. L. Holman, Renovo, Clinton County, Pa.; Henry K. Stout, Sunbury, Pa.
Foremen Car Repairs—I. W. Van Houten, West Phila.; S. W. Myers, Harrisburg; J. P. Levan, Altoona, Pa.; M. H. Fails, Blairsville,

Pa.; J. G. Stewart, Torrens, Pa.; P. S. Bogart, South Amboy, N. J.; A. Rabean, Camden; M. Messimer, Renovo, Pa.; J. C. Moore, Lambertville, N. J.; David Cowly, Erie, Pa.; Geo. J. Mason, Sunbury, Pa.

Foremen Car Painters—F. P. McCullen, West Philadelphia, Pa.; Cyrus Weeks, Harrisburg, Pa.; Fred. S. Ball, Altoona, Pa.; John Eyman, Torrens, Allegheny County, Pa.; Jacob Hoesley, Meadows, 25 Astor st., Newark, N. J.; Peter A. Duttlinger, Erie, Pa.; A. J. Weidler, Renovo, Clinton County, Pa.; Henry Laidler, Sunbury, Pa.; B. F. Wynn, Blairsville, Pa.

Engineers Maintenance of Way—M. W. Thomson, Altoona, Pa.; A. C. Hippey, Williamsport, Pa.; E. F. Brooks, Jersey City, N. J.

Asst. Engs.—W. Heyward Myers, Phila.; C.K. Lawrence, Harrisburg, Pa; A. P. Gest, Pittsburgh, Pa.; F. F. Robb, Pittsburgh, Pa.; Victor Wierman, Blairsville, Pa.; C.J. Bechdolt, Tyrone, Pa.; Frank Ellmaker, Jersey City, N.J.; R. P. Snowden, Camden, N. J.; A. W. Preston, Lambertville, N. J.; J. R. Davis, Williamsport, Pa.; D. H. Lovell, Ronovo, Pa.; Jesse Suppler, Erie, Pa.; Geo. W. Creighton, Sunbury, Pa.

Supvs.—J. G. Craig, West Philadelphia; Jno. McGraw, Downingtown, Pa.; G. A. Starkweather, Lancaster, Pa.; Louis H. Parke, Middletown, Pa.; C. W. King, Harrisburg, Pa.; C. W. Mayor, Mifflin, Pa.; T. H. Dobson, Huntington, Pa.; Jas. Cullen, Spruce Creek, Pa.; F. F. Robb, Altoona, Pa.; F. Ehrenfeld, Gallitzin, Pa.; W. N. Hayes, New Florence, Pa.; Isaac Good, Wall, Pa.; Jesse Yarnell, Pittsburgh; S. Dobson, Greensburg, Pa.; C. J. Bechdoh, South Side, Pittsburg; W. Ranson, Blairsville, Pa.; H. N. Miller, Freeport; T. B. Gilson, (Asst., C. A. Weakley), Hollidaysburg, Pa.; C. G. Almy, Tyrone, Pa.; Stewart Greek, Tyrone, Pa.; G. W. Paxson, Parkersburg, Pa.; A. C. Shand, Altoona; S. C. Long, Monongahela City, Pa.; J. S. Nicholas, Columbia, Pa.; W. A. Howell, York, Pa.; McCall Mercer, Norristown, Pa., Geo. L. Cummings, Reading, Pa.; J. R. Smith, Newark, N.J.; L. Blackstone, New Brunswick, N. J.; T. P. Ford, Tacony, Pa.; F. J. Potter, Bordentown, N. J.; I. H. Wainwright, Mount Holly, N.J.; John O'Brien, Lambertville, N. J.; H. W. Stahl, Sunbury, Pa.; J. A. Ranson, Catawissa, Pa.; A. G. Brown, Lock Haven, Pa.; E. Phillips, Williamsport, Pa.; R. Buck, Watsontown, Pa.; M. Cashman, St. Mary's, Pa.; P. Leary, Ridgeway, Pa.; Jno. McDonald, Driftwood, Pa.; F. A. Austin, Erie, Pa.; M. Spaulding, Warren, Pa.; R. T. Morrow, Jr., Lewisburg, Pa.

PENNSYLVANIA COAL—Hawley, Pa., to Port Griffith, Pa., 62.87 m'ls. G. 4ft., 3 in.

Pres.—Geo. A. Hoyt, Stamford, Conn.
Gen. Supt.—J. B. Smith, Dunmore, Pa.
Master Mech.—Andrew Crane, "
Master Car Builder—Geo. W. Simpson, "
Road Master—Wm. Ocksender. "
Principle office and address, Hawley, Pa.

PENNSYLVANIA COMPANY.

Pres.—George B. Roberts. Phila., Pa.
First Vice Pres.—J. N. McCullough, Pittsburgh, Pa.
Second Vice Pres.—Wm. Thaw, "
Third Vice Pres. and Comptroller—Thos. D. Messler, Pittsburgh, Pa.
Mgr.—Wm. A. Baldwin, "
Asst. Mgr. Cleveland & Pittsburgh Div.—R. F. Smith, Cleveland, O.
Gen. Supt.—John Thomas, Pittsburgh, Pa.
Chief Eng.—Pelican Slataper, "
Principal Asst. Chief Eng.—T. Rodd, "
Div. Eng.—T. Jackson, Ft. Wayne, Ind.; L. Linton, Cleveland, O.
Sec.— S. B. Ligett, Pittsburgh, Pa.
Treas.—John E. Davidson, "
Auds.—John P. Farley, Pittsburgh, Pa.; Cleveland & Pittsburgh Div.—James Instan, Cleveland, O.
Gen. Pass. and Ticket Agt.—E. A. Ford, Pittsburgh, Pa.
Gen. Bag. Agt.—R. R. Bentley, "
Gen. Freight Agt.—Wm. Stewart, "
Pur. Agt.—Wm. Mullins, "
Supt. Motive Power—Joseph Wood, Ft. Wayne, Ind.
Master Mechs.—Eastern Div., Geo. J. Parkin; Allegheny, Pa.; D. M. Peppard, Cresline, O. Western Div., F. D. Casanave, Ft. Wayne, Ind.; Cleveland & Pittsburgh Div., W. F. Beardsley, Wellsville, O.; Erie & Ashtabula Div., J. A. Wood, Erie, Pa.

Foremen of Repairs—Eastern Div., Henry Riddle, Allegheny, Pa.; Western Div., Israel Lee, Ft. Wayne, Ind.; D. S. McCardell, Chicago, Ill.; Cleveland and Pittsburgh Div., A. Steinbrenner, Cleveland, O.; J. B. Goff, Wellsville, O.

Supts.—Eastern Div., A. B. Starr, Allegheny, Pa.; Western Div., C. D. Law, Ft. Wayne, Ind.; Erie & Ashtabula Div., J. M. Kimball, Crosscut P. O., Pa.; Toleda Div., J. S. Morris, Toledo, O.; Cleveland & Pittsburgh Div., P. Bruner, Wellsville, O.

Road Masters—Eastern Div., W. H. Potter, Allegheny, Pa., Western Div., D. L. Slataper, Ft. Wayne, Ind.; Erie & Astabula Div., H. W. Byers, Crosscut P. O., Pa.; Toledo Div., Chas. M. Cook, Toledo, O.; Cleveland & Pittsburgh Div., Thos. Dickson, Wellsville, O.

Supv's—Eastern Div., G.W. Kettering. Allegheny, Pa.; Joseph Kilch, Enon, Pa.; F. Barber, Alliance, O.; G. M. Farley, Wooster, O.; Western Div., D. S. Petersen, Upper Sandusky, O.; J. M. Craig, Lima, O.; A. M. Morrison, Plymouth, Ind.; D. E. Simons, Valparaiso, Ind.; Josiah Gray, Chicago, Ill.; Erie & Ashtabula Div., C. M. Large, Jamestown, Pa.; F. W. Patterson, Warren, O.; Toledo Div., John K. Holland, Toledo, O.; Cleveland & Pittsburgh Div., Robert Cockburn, Wellsville, O.; Wm. Richardson, Ravenna, O.

PENNSYLVANIA & NEW YORK—(See Lehigh Valley.)

PENNSYLVANIA, SLATINGTON & NEW ENGLAND—Harrisburg, Pa., to Poughkeepsie, N.Y., 190 m'ls. Std. G.
Pres.—N. S. Rue, 77 and 79 Nassau st., N. Y.
Vice Pres. and Sec.—S. M. Schank, 77 and 79 Nassau st., N. Y.
Gen. Supt.— Charles H. Stanton, 77 and 79 Nassau st., N. Y.
Chief Eng.—A. B. Paine, 77 and 79 Nassau st., N. Y.
Sec.—S. C. Stanton, Jr., 77 and 79 Nassau st., N. Y.
Gen. Pass., Ticket, Freight and Pur. Agt.—E. J. Fallon, 77 and 79 Nassau st., N. Y.
Treas.—E. Sterling, New York.

PENSACOLA & ATLANTIC — Pensacola, Fla., to River Junction, Fla., 161.74 m'ls. G., 5 ft.
Pres.—M. H. Smith, Louisville, Ky.
Vice Pres. and Gen. Supt.—W. D. Chipley, Pensacola, Fla.
Chief Eng. and Road Master— C. A. Davis, Pensacola, Fla.
Sec. and Aud.—R. M. Cary, Jr., "
Treas —F. B. Bonifay, "
Gen. Freight and Pass. Agt.—F. C. Sheppard, Pensacola, Fla.
Master Mech.—W. D. Robb, "
Supvs.—Eastern Div., W. C. Clifton, Marianna, Fla.; Western Div., W. S. Baldwin, Lake de Funiak, Fla.; Bridges, N. M. Mayson, Marianna, Fla.

PEORIA AND BUREAU VALLEY—Peoria, Ill., to Bureau Junc., 54.22 m'ls.
Pres.—F. H. Tows.
Treas.—Chas. W. Durant, New York, City,

PEORIA, DECATUR & EVANSVILLE—Pekin. Ill.. to Evansville, Ind.. 254.1 m'ls. Std. G.
Pres.—C. R. Cummings, Chicago, Ill.
Vice Pres.—Geo. L. Bradbury, Peora, Ill.
Second Vice Pres.—Henry Aitken, New York.
Gen. Mgr. and Pur. Agt.—Geo. L. Bradbury, Peoria.
Supt.— O. W. Bell, Mattoon, Ill.
Chief Eng.—T. A. Allen, "
Sec.—M. R. Maxwell, Peoria, Ill.
Treas.—R. A. Bunker, "
Acting Aud.—W. A. Wildhack, "
Traffic Mgr.—H. C. Parker, "
Gen. Pass. Agt.—S. M. Miller, "
Master Mech.—P. Reilly, Mattoon, Ill.
Forman Loc. Repairs—J. W. Kirtz, "
Forman Car Repairs—J. E. Yonts, "
Forman Car Painter—W. O. Jewell, "
Road Masters—C. E. Keys, Mattoon, Ill.; J. L. Steiner, Greyville, Ill.

PEORIA & PEKIN UNION—Pekin, Ill., to Peoria, Ill., 18.5 m'ls. Std. G.
Pres.—A. L. Hopkins, New York, N. Y.
Vice Pres.—C. R. Cummings, Chicago, Ill.
Sec. and Treas.—R. A. Bunker, Peoria, Ill.
Gen. Supt. Freight and Ticket Agt.—T. B. Burnett, Peoria, Ill.
Master Mech.—R. F. Hurd, Peoria
Asst. Supt.—T. B. Ogden, "
Road Master—W. M. Pearce. "

PERKIOMEN — Perkiomen Junc., Pa., to Emans Junc., Pa., 33 5 m'ls.
Pres. A. H. Seipt, Skippackville, Pa.
Asst. Pres.—Jas. Boyd, Norristown, Pa.
Supt.—D. B. Clack, Pawling, Pa.
Chief Eng. and Compt.—Geo. B. Boggs, Norristown, Pa.
Sec.—Phillip Super, "
Treas. and Pur.Agt.—Howard Boyd, "
Aud.—F. C. Boggs, "
Gen. Agt.—G. W. Yost, "
Road Master—Robt. Moyer, Collegeville, Pa.

PETERBOROUGH—Wilton, N.H., to Greenfield, N. H., 11.72 m'ls.
Pres.—Jas. Scott, Petersborourgh, N. H.
Treas.—Jno. G. Kimball, Nashua, N. H.
Clerk—G. C. Shattuck, "

PETERBOROUGH & HILLSBOROUGH—Peterborough, N.H., to Hillsborough Bridge, N. H., 18.5 m'ls. Std. G.
Pres.—Josiah Minot, Concord, N. H.
Treas. and Clerk—E. H. Woodman, "
Supt.—Geo. E. Todd, "

PETERSBURG—Petersburg, Va., to Weldon, N.C., 61 m'ls. Std. G.
Pres.—E. T. D. Myers, Richmond. Va.
Gen. Mgr.—H. Walters, Baltimore, Md.
Gen. Supt.—J. F. Divine, Wilmington, N. C.
Supt. Trans.—J. R. Kenly, "
Pur. Agt.—G. F. Jones, Petersburg, Va.
Treas.—M. W. Yarrington, Richmond, Va.
Aud.—L. E. Clark, Petersburg, Va.
Gen. Pass. and Freight Agt.—T. M. Emerson, Wilmington, N. C.
Div. Supt.—R. M. Sully. Petersburg, Va.
Master Mech.—R. B. Andrews, "
Master Car Builder—I. W. Fleming, "
Foreman Car Painters—Jno. Smith, "

PETITCODIAC & ELGIN—Petitcodiac, N.B., to Elgin, N.B., 14 m'ls. Std. G.
Gen Mgr.—C. A. Hallett, Sussex, N. B.
Principal office, Elgin, New Brunswick.

PHILADELPHIA AND ATLANTIC CITY—Camden, N.J., to Atlantic City, N.J., 54.-67 m'ls. G., 3 ft., 6 in.
Pres.—Geo. DeB. Keim, 227 S. 4th st., Phila.
Gen. Mgr.—J. E. Wotten, "
Supt.—W. Bertolet, Phila.
Chief Eng.—H. K. Nichols, "
Res. Eng.—J. J. Sickles, Camden, N. J.
Sec.—A. Foster, 227 S. 4th st., Phila.
Treas.—Jno. Welsh, "
Compt.—D. Jones. "
Gen. Traffic Mgr.—J. L. Bell, Phila.
Gen. Pass. and Ticket Agt —C. G. Hancock.
Gen. Bag. Agt.—Geo. A. Schaffer, Phila.
Div. Freight Agt.—W. J. Parmentier, "
Pur. Agt.—W. S. Wlison, "

Master Mech.—H. W. Messinger, Phila.
Forman Car Repairs—Benj. Drake, Camden.
Supv.—J. J. Rogers, "

PHILADELPHIA & BALT. CENTRAL—West Phila., Pa., to Octoraro, Junc., Md., 79.06 m'ls.
Pres.—Isaac Hinckley,
Sec. and Treas.—Robt. Craven, Phila.

PHILADELPHIA & ERIE—Sunbury, Pa., to Erie, Pa., 287.56 m'ls. Std. G.
Pres.—W. Hassell Wilson, Phila., Pa.
Sec. and Treas.—J. S. Vanzandt, "
Gen. Supt.—R. Neilson, Williamsport.
Gen. Freight Agt.—W. C. Ward, "
Supt. M. Div.—E. B. Westfall, Renovo, Pa.
Gen. Ticket Agt.—E. S. Harrar, Williamsport, Pa.
Supt. E. Div.—Thomas Gucker, "
Supt. Motive Power—A. O. Dayton, "
Supt. W. Div.—J. W. Reynolds, Erie, Pa.

PHILADELPHIA, GERMANTOWN&NORRISTOWN—Phila to Norristown, Pa., 36.62 m'ls.
Pres.—W. S. Wilson.
Treas.—W. W. Stephens, Phila, Pa.

PHILADELPHIA, MARLTON & MEDFORD—Haddenfield, Junc., N. J., to Medford Junc., N. J., 12.23 m'ls.
Pres.—Wm. L. Wilkens.
Supt.—Wm. N. Bannard, Camden, N. J.
Sec. and Treas.—D. M. Zimmerman.

PHILADELPHIA, NEWTOWN & NEW YORK—Newton Junc., Pa., to Newton, Pa., 20.9 m'ls. Std. G.
Pres.—Jas. Boyd, Norristown, Pa.
Sec. and Treas.—Howard Boyd, "
Supt.—W. M. Geary, "
Gen. Ticket and Freight Agt.—G. W. Yost, Norristown, Pa.

PHILADELPHIA & READING—Phila., Pa., to Mt. Carbon, Pa., 158.29 m'ls. Std. G.
Recrs.—Geo. DeB. Keim, Stephen A. Caldwell, Phila.
Pres.—Geo. DeB. Keim, "
Treas.—W. A. Church, "
Sec.—A. Foster, "
Gen. Mgr.—J. E. Wootten, "
Gen. Traffic Mgr.—J. L. Bell, "
Chief Eng.—H. K. Nickols, "
Chief Asst. Eng.—E. F. Smith, Reading, Pa.
Gen. Pass. and Ticket Agt.—C. G. Hancock, Phila.
Pur. Agt.—W. S. Wilson, "
Compt.—D. Jones, "
Gen. Aud. Traffic Receipts—Jno. Heebner, "
Aud. Coal and Express Traffic—H. W. Hancock, Phila.
Aud. Merch. and Pass. Traffic—W. B. Scott, Phila.
Gen. Bag. Agt.—Geo. A. Schaffer, "
Eng. Mach.—L. B. Paxson, Reading, Pa.
Supt. Trans.—Geo. Eltz, Reading, Pa.
Div. Supts.—J. A. Swergard, Phila.; W. W. Stearns, Elizabeth, N. J.; G. W. Twining, Mauch Chunch, Pa.; D. C. Reinhart, Catawissa, Pa.; A. A. Hessner, Mahanoy Plane, Pa.
Asst. Road Master—Wm. Hunter, Phila.
Div. Road Masters—M. F. Bonzano, Phila.; I. E. Umstead, Pottstown, Pa.; E. Chamberlain, Reading, Pa.; Wm. G. Johnson, Pine Grove, Pa.; P. A. Taylor, Pottsville, Pa.; S. H. Kupp, Mahanoy Plane, Pa.; Wm. H. Dechant, Tamaqua, Pa.; Wm. G. Yetter, Catawissa, Pa.; W. H. Peddle, Elizabeth, N. J.; W. V. Clark, Red Bank, N. J.; J. H. Thompson, Mauch Chunch, Pa.
Principal Office, 227 S. 4th st., Phila.

PHILADELPHIA & TRENTON—Trenton, to Frankford Junc., 27.65 miles.
Pres.—W. H. Wilson, Phila.
Treas.—Wm. Taylor, "

PHILADELPHIA, WILMINGTON & BALTIMORE.
Pres.—Isaac Hinckley, Phila.
Gen. Supt.—H. F. Kenney, "
Sec. and Treas.—Robert Craven, 233 S. 4th st., Phila.
Supt. Motive Power—J. M. Wallis, Phila.
Master Mech.—H. D. Gordon, Wilmington, Del.
Master Car Bldr.—W. H. Lungren, "
Master Car Painter—J. Schiller, "
Eng. Maint. Way—A. Feldpauche, "
Div. Supts.—L. K. Lodge, Media, Pa.; I. N. Mills, Wilmington, Del.; H. H. Carter, Wilmington, Del.
Supvs.—R. H. Seeley, Phila.; Sam Boyd, Perryville, Md.; Robert McClintock, Baltimore, Md.; John Mahoney, Wilmington, Del.; R. R. Darlington, Media, Pa.

PICKERING VALLEY—Phoenixville, to Byers Station, Pa., 12.03 miles.
Pres.—Geo. DeB. Keim.
Treas.—Jno. Welch.
Sec.—Howard Hancock, Phila.

PIEDMONT—Danville, Va., to Greensborough, N. C., 48.5 miles.
Pres.—A. S. Buford,
Treas.—C. A. Barber, Richmond, Va.

PITTSBURGH, BRADFORD & BUFFALO—(See Pittsburgh & Western).

PITTSBURGH, CINCINNATI & ST. LOUIS—Pittsburgh, Pa., to Columbus, O., 200.9 miles. Std. G.
Pres.—George B. Roberts, Phila.
Vice Pres.—J. N. McCullough, Wm. Thaw, T. D. Messler, Pittsburgh, Pa.
Mgr.—James McCrea, Columbus, O.
Chief Eng.—M. J. Becker, "
Asst. Chief Eng.—P. R. Johnson, "
Div. Engs.—G. G. Darlington and six others.

Sec.—S. B. Leggett, Pittsburgh.
Treas.—John E. Davidson, "
Aud.—A. McEleney, "
Supt. Trans.—S. H. Church, Columbus, O.
Gen. Pass. and Ticket Agt.—E. A. Ford, Pittsburgh.
Gen. Baggage Agt.—R. R. Bentley, "
Gen. Freight Agt.—W. Stewart, "
Gen. Pur. Agt.—W. Mullins, "
Supt. Motive Power—Edward B. Wall, Columbus, O.
Master Mechs.—C. P. Streat, Dennison, O.; R. Curtis, Columbus, O.; W. W. Reynolds, Logansport, Ind.; Leroy Kells, Pendleton, O.; Leroy Kells, Lancaster, O.; W. Swanston, Jeffersonville, Ind.
Div. Supts.—E. B. Taylor, Pittsburgh, Pa.; W. F. Black, Zanesville, O.; R. Peters, Cincinnatt, O.; E. W. McKenna, Louisville, Ky.; J. J. Turner, Indianapolis, Ind.; Chas. Watts, Logansport, Ind.; J. F. Miller, Richmond, Ind.

PITTSBURGH, CLEVELAND & TOLEDO—(See Pittsburgh & Western).

PITTSBURGH & CONNELLSVILLE—Pittsburgh, Pa., to Cumberland, Md., 172.2 miles. Std. G.
Pres.—Robert Garrett, Baltimore, Md.
Sec., Treas. and Aud.—J. B. Washington, Pittsburgh.

PITTSBURG, FT. WAYNE & CHICAGO—(See Pennsylvania R. R.)

PITTSBURGH & LAKE ERIE—Pittsburgh, Pa., to Youngstown, O., 70.35 miles. Std. G.
Pres.—John Newell, Cleveland, O.
Vice Pres.—David Hostetter, Pittsburgh.
Gen. Mgr.—W. C. Quincy, "
Sec. and Treas.—Jno. G. Robinson, "
Master ofTrans.—R. W. Jones, "
Asst. Master of Trans.—D. C. Bachelor, "
Chief Eng. P. McK. & Y. R.—J. Wainwright, Pittsburgh.
Asst. Eng.—P. R. McCullough, "
Aud., Gen. Pass. and Ticket Agt.—A. D. Smith, Pittsburgh.
Gen. Freight Agt.—E. D. Nettleton, "
Pur. Agt.—D. H. Hostetter, "
Foreman Loco. Repairs—W. L. Herbert, Pittsburgh,; G. F. Naylor, Youngstown, O.
Foreman Car Repairs—H. B. Milligan, Pittsburgh, · G. F. Naylor, Youngstown, O.;
Foreman Car Painters—Wm. Quest, Pittsburgh.
Fuel Agt., Master Mech. and Car Bldr.—S. W. Haines, Pittsburgh.
Road Masters—John W. Corcoran, Beaver Falls, Pa.; P. Glancy, Shoustown, Pa.; John Calior, Pittsburgh; Chas. Erickson, Pittsburg.

PITTSBUTGH, McKEESPORT & YOUGHIOGHENY—Pittsburgh, Pa., to New Haven, Pa., 56.95 miles.
Pres.—W. C. Quincy, Pittsburg.

PITTSBURGH SOUTHERN--Pittsburgh, Pa., to Washington, Pa., 53.56 miles. Std. G. and 3 ft·
Pres. and Supt.—Thomas N. King, Pittsburgh.
Sec.—J. B. Washington, "
Treas.—W. H. Ijams, Baltimore, Md.

PITTSBURGH, VIRGINA & CHARLESTON—Birmingham to Brownsville, Pa., 53.23 miles.
Pres—J. N. DuBarry, Phila.
Treas.—D. P. Corwin, Pittsburgh.

PITTSBURGH & WESTERN—207.98 miles. Std. G. and 3 ft.
Pres.—James Callery, Allegheny City, Pa.
Vice Pres. and Gen. Mgr.—Thomas King, Allegheny City.
Asst. Gen. Mgr. and Pur. Agt.—N. Bruce. Allegheny City.
Supt.—J. T. Johnson, "
Chief Eng.—H. A. Schwannecke, "
Treas. and Sec.—H. D. Campbell, "
Aud., Gen. Pass., Ticket and Freight Agt.—J. L. Kirk, Allegheny City.
Master Mech.—W. M. Flaharhan, "
Foreman of Loco. Repairs—W. J. McElroy, Alleghany City.
Road Masters and Supvs.—J. Louden, Pittsburgh Division, Allegheny, Pa.; J. C. McCune, Foxburg Division, Butler, Pa.; A. D. Cowls, Northern Division, Foxburg, Pa.

PITTSBURGH, WHEELING & KENTUCKY—Wheeling Junc., W. Va, to Benwood, W. Va., 28.4 miles. Std. G.
Pres.—C. D. Hubbard, Wheeling, W. Va.
Vice Pres.—Jno. McLure, " "
Sec.—J. M. Belleville, " "
Treas.—Jno. E. Davidson, Pittsburgh.
Asst. Sec.—S. B. Liggett, "

PITTSFIELD & NORTH ADAMS—Pittsfield to North Adams, Mass., 23.32,
Pres.—Frank Appleton.
Treas.—Chas. E. Stephens, Boston, Mass.

POMEROY & NEWARK—Pomery, Pa., to Newark, N. J.
Pres.—J. N. DuBarry.
Sec. and Treas.—James R. McClure, Phila.

PONTIAC, OXFORD & PORT AUSTIN—Pontiac, Mich., to Caseville, Mich.
Pres. and Gen. Mgr.—Geo. W. Debevoise, N. Y.
Vice Pres.—C. A. Carpenter, Pontiac, Mich.
Gen. Supt. and Pur. Agt.—James Houston, Pontiac, Mich.
Chief Eng. and Road Master—Geo. A. Nettleton. Pontiac, Mich.
Sec. and Treas.—F. H. Carroll, "
Aud.—W. C. Sanford, "
Supt. Motive Power and Mach.—B. F. Kelsey, Pontiac, Mich.
Gen. Pass. and Freight Agt.—C. C. Jenkins, Pontiac, Mich.
Foreman Car Repairs—Geo. Codogan, "

PORT HURON & NORTHWESTERN—Port Huron, Mich., to Saginaw, Mich., 218 miles. Std. G.
Pres.—John P. Sanborn, Port Huron, Mich.
Vice Pres.—C. F. Harrington " "
Gen. Mgr. and Pur. Agt.—Henry McMorran, Port Huron, Mich.
Gen. Supt. and Traffic Mgr.—I. R. Wadworth, Port Huron, Mich.
Chief Eng.—A. L. Reed, " "
Sec. and Treas.—F. L. Wells, " "
Aud.—E. C. Chamberlain, " "
Supt. Motive Power and Mach.—Chas Deiffenboch, Port Huron, Mich.
Master Car Bldr.—Benj. Hillier, " "
Road Master—E. A. Cole, " "

PORTLAND & OGDENSBURG—Portland, Me., to Fabyan's, 92.5 miles. Std. D.
Pres. and Recr.—Sam. J. Anderson, Portland, Me.
Gen. Supt.—Jonas Hamilton, "
Sec. and Gen. Pass. Agt.—Chas. H. Foye, Portland, Me.
Treas.—Jno. W. Dana, "
Gen. Freight Agt.—Walter Tolman "
Foreman Loco. Repairs—M. L. Babb, "
Foreman Car Repairs—W. C. Brewer, Portland, Me
Master Car Painter—A. C. Urquhart, "
Road Master—E. Newcomb, Westbrook, Me.

PORTLAND & ROCHESTER—Portland, Me., to Rochester, N. H., 52.5 miles. Std. G.
Pres.—Geo. P. Wescott, Portland, Me.
Supt., Gen. Ticket and Pur. Agt.—J. W. Peters, Portland, Me.
Clerk and Treas.—W. H. Conadt, "
Gen. Freight Agt.—A. Hersey, "
Master Mech.—E. H. C. Thompson, "
Master Car Bldr—David Dow, "
Road Master—J. Morrill, "

PORTLAND, SACO & PORTSMOUTH—Portsmouth, N. H., to Portland, Me., 66.43 miles.
Pres.—Geo. E. B. Jackson, Portland, Me.
Treas.—N. G. Chapin, Boston, Mass.

PORT JERVIS & MONTICELLO—Port Jervis, N. Y., to Monticello, N. Y., 23.75 miles. Std. G.
Pres.—Fred. J. de Peyster, New York
Gen. Mgr., Aud. and Pur. Agt.—H. V. Heller, Port Jervis, N. Y.
Sec.—Jas. F. Hayward, New York.
Treas.—Gordon Norre, "
Road Master—A. Van Aken, Monticello, N. Y.

PORT ROYAL & AUGUSTA—(See Central of Georgia).

PORTSMOUTH & DOVER—Portsmouth, N. H., to Dover, N. H., 10.88 miles.
Pres.—Frank Jones.
Treas.—G. L. Treadwell, Portsmouth, N. H.

PORTSMOUTH, GREAT FALLS & CONWAY—Conway Junc., Me., to North Conway, N. H., 82.1 miles.
Pres.—Author Sewall, Bath, Me.
Treas.—N. G. Chapin, Boston, Mass.

POTOMAC, FREDERICKSBURG & PIEDMONT—Fredericksburg, Va., to Orange Court House, Va., 38 miles. G. 3 ft.
Pres.—L. H. Richards, Fredericksburg, Va.
Gen. Supt.—Will M. Grafton, "
Acting Sec. and Treas.—Wm. J. Rogers, Fredericksburg, Va.
Master Car Bldr.—Wm. Livingston, "
Road Master. Wm. Goldsmith, "

POUGHKEEPSIE, HARTFORD & BOSTON—46.58 miles. Std. G.
Pres.—Geo. P. Pelton, Poughkeepsie, N. Y.
Vice Pres.—Jno. F. Winslow, " "
Gen. Supt. Pass. and Freight Agt.—J. A. Perkins, Poughkeepsie, N. Y.
Sec. and Treas.—Edw. Elsworth, " "
Mast. Mech.—Jno. L. Donalson, " "

PRINCE EDWARD ISLAND—Alberton to Georgetown, Can.
Min. of Railways—Hon. J.H. Pope, Ottawa, Can.
Dep'ty Min. of Railways.—T. Trudean, " "
Gen. Mgr.—C. Schreiber, " "
Gen. Supt.—Jas. Coleman, Charlottetown, P.E.I.
Acc'nt and Aud.—W. T. Huggin, " "
Master Mech.—Jos. Unsworth, " "
Foreman Car Repairs.—D. M. Fraser, "
Foreman Car Painters—Chas. Simmons, "
Road Masters—Henry Houle, Jno. McPherson, Charlotteville, P.E.I.

PROFILE & FRANCONIA NOTCH—Bethlehen Junction, N.H., to Profile House, N. H., 13.5 miles. G. 3 ft.
Pres.—Emmons Raymond, Boston.
Gen. Supt., Treas. and Pur. Agt.—C. H. Greenleaf, Profile House, N. H.
Gen. Ticket Agt.—W. R. Brackett, Plymouth, "

PROVIDENCE & SPRINGFIELD—Providence, R. I., to Pascoag, R. I., 22.8 miles. Std. G.
Pres., Gen. Mgr. and Pur. Agt.—William Tinkham, Providence, R. I.
Sec.—Jabez C. Wright, " "
Treas. and Aud.—E. W. Tinkham, " "
Master Mech. and Foreman of Loco. Repairs—George P. Richardson, Providence, R.I.
Road Master—R. T. Bishop, " "
Chief Eng., and Supt.—Henry B. Lewis, " "
Traffic Mgr.—Warren Logee, " "
Gen. Pass. Agt.—Geo. Hoyle, " "
Gen. Bag. Agt.—E. A. Pike, " "

PROVIDENCE, WARREN & BRISTOL—East Providence, R. I., to Bristol, R. I., 13.6 miles. Std. G.
Pres.—Henry A. Whitney, Boston, Mass.
Gen. Supt.—A. A. Folsom, " "
Chief Eng., Sec. and Pur. Agt.—Waterman Stone, Providence, R. I.

Treas.—B. B. Torrey, Boston, Mass.
Gen. Ticket Agt.—S. Arthur Perkins, Providence, R.I.
Master Mechanic and Car Builder.—Rufus Smith, Bristol, R.I.

PROVIDENCE & WORCESTER—Providence, R. I., to Worcester, Mass., 50.41 miles. Std. G.
Pres.—George A. Leet, Providence, R.I.
Gen. Supt. and Pur. Agt.—William E. Chamberlin, Providence, R.I.
Chief Eng.—John W. Ellis, Woonsocket, R.I.
Asst. Chief Eng.—Willard Kent, " "
Treas.—John R. Balch, Providence, R.I.
Aud.—Jas. A. Windsor, Providence, R. I.
Gen. Pass. and Ticket Agt.—William M. Durfee, Providence, R.I.
Gen. Freight Agt.—J. E. Bacon, " "
Supt. of Loco. and Car Dept.—A. G. Riggs, Providence, R.I.
Foreman of Loco. Repairs—Russell Hawkes, Providence, R.I.
Foreman of Car Repairs—D. W. Hunter, Valley Falls, R.I.
Foreman Car Painters.—H.W.Walton," "
Eng. and Road Master in Chief.—W. F. Ellis, Woonsocket, R.I.
Div.Road Masters—W.P. Comstock, Providence, R.I.; J. J. Powers, Worcester, Mass.

Q.

QUEBEC CANTRAL—Sherbrooke, Que., to South Quebec, Que., 158.5 miles. Std G.
Pres.—Hon. J. G. Robertson, Sherbrooke, Can.
Vice Pres.—R. D. Morkill, " "
Gen. Mgr.—James R. Woodward, " "
Gen. Supt.—A. Steele, " "
Sec.—J. A. Archambault, " "
Cshr., Gen. Pass. and Gen. Freight and Pur. Agt.—R. D. Morkill, Jr., Sherbrooke, Can.
Master Mech.—J. Selveright, " "
Road Masters—Richard Grant, Beauce Junction, Can.; P. Dion, Levis, Can.

QUEBEC & LAKE ST. JOHN—Quebec, Que., to Lake St.John,Que.,175 miles. Std.G.
Pres.—William Withall, Quebec.
Vice Pres.—L. Beaudet, "
Sec. and Mgr.—J. G. Scott, "
Asst. Supt.—P. Allen, St. Raymond, Can.
Chief Eng.—James Cadman, " "
Asst. Chief Eng.—Jean. F. Guay, St. Raymond, Can.
Div. Eng.—E. A. Hoare, Quebec.
Consul. Engs.—A. L. Light, J. G. Scott, "
Aud.—James Lennon, "
Master Mech.—M. Wakefield, St. Raymond,Can.
Road Master—Michael Carpenter, " "

QUEEN ANNE & KENT—Massey's Cross Roads, Md., to Centreville, Md., 25.86 miles. Std. G.
Pres.—B. T. Biggs.
Sec. and Treas.—Robert Craven, Phila., Pa.

QUINCY, MISSOURI & PACIFIC—West Quincy, Mo., to Trenton, Mo., 135.9 miles.
Pres.—C. H. Bull.
Vice Pres.—A. Greene.
Treas.—U. S. Peenfield.
Sec.—C. H. Spencer, Quincy, Ill.

R.

RALEIGH & GASTON AND RALEIGH & AUGUSTA AIR LINE—Raleigh, N.C., to Hamlet, N.C.; Raleigh, N.C., to Weldon, N.C., 204.5 miles. Std. G.
Pres.—John M. Robinson, Baltimore, Md.
Gen. Mgr. and Pur. Agt.—John C. Winder, Raleigh, N.C.
Supt.—Wm. Smith, " "
Sec. and Treas.—W. W. Vass, " "
Aud.—J. B. Martin, " "
Traffic Mgr.—Sol. Hass, Richmond, Va.
Gen.Pass.,Ticket and Freight Agt—F.W. Clark, Wilmington, N. C.
Gen. Bag. Agt.—J. H. Hill, Richmond, Va,
Master Mech.—B. R. Harding, Raleigh, N.C.
Foreman of Loco. Repairs—P. C. Fleming, Raleigh, N.C.
Foreman of Car Shops—R. T. Bishop," "
Foreman of Car Painters—C. C. Williams, Raleigh, N.C.
Road Masters—J. R. Thrower, R.&G., Henderson, N. C.; H. P. Guess, R. & A. A. L., Cary, N. C.

READING & COLUMBIA—Columbia, Pa., to Sinking Springs, Pa., 73.67 miles. Std.G.
Pres.—G. A. Nicholls, Reading, Pa.
Treas.—Jno. Welch, Phila, "
Sec. Howard Hancock, " "
Supt.—A. M. Wilson, Columbia, "

RENSSELAER & SARATOGA—136.22 mls.
Pres.—Geo. H. Cramer.
Sec. and Treas.—Geo. H. Perry, Troy, N.Y.

REW CITY & ELDRED—Rew City, Pa., to Eldred, Pa. 12.16 miles. G. 3 ft.
Pres.—J. J. Carter, Titusville, Pa.
Sec.—J. E. Ransom.
Treas.—B. W. Spencer, New York City.

RICH HILL—34.19 miles.
Pres.—George H. Nettleton, Kansas City, Mo.
Treas.—Chas. Merriam, Boston, Mass.

RICHMOND & ALLEGHANY—Richmond, Va., to Clifton Forge, Va. 262.54 miles.
Pres.—Jas. T. Clossen, New York.
Vice Pres.—John J. McCook, "
Recr. —Lawrence Myers, "
Recr. and Mgr.—Decatur Axtell, Richmond, Va.
Cons. Eng.—Henry D. Whitcomb, "
Eng.—R. Shirreffs, "
Sec. and Asst. to Pres.—Eugene R. Leland, New York.
Treas.—Robert B. Smead, Richmond.
Aud.—Louis P. Ecker, "
Gen Pass., Ticket and Freight Agt.—John R. Macmurdo, Richmond
Pur. and Fuel Agt.and Car Acc'nt.—M. Sweeney, Richmond.
Master Mech.—Geo. D. Harris, "
Train Master and Supt. Telg.—A. D. Bethard, Richmond.
Master Carpt.—C. S. Hazlewood, Lynchburg, Va.
Road Masters—A. J. Gillespie, Richmond; N. P. Baker, Buchanan, Va.
Foreman Loco. Reprs.—Wm. Hassman, Richmond.
Foreman Car Reprs.—J. E. Capps, "
Foreman Car Painters—W. H. Wise, "

RICHMOND & DANVILLE—Richmond, Va., to Danville, Va., 846.78 miles. G. 5ft.
Pres.—A. S. Buford, Richmond, Va.
First Vice Pres.—F. W. Huidekoper, Alexandria, Va.
Second Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond.
Ass. Gen. Mgr.—Peyton Randolph, "
Sec.—Richard Brooke, "
Treas.—W. E. Turner, "
Aud.—E. A. Barber, "
Traffic Mgr.—Sol. Hass, "
Gen. Pass. Agt.—M. Slaughter, "
Gen. Freight Agt.—J. H. Drake, "
Pur. Agt.—J. P. Minetree, "
Pupt. Motive Power—R D. Wade, "
Master Mechs.—T. W. Gentry, Richmond, Va.; W. H. Turrentine, Company's Shops, N. C.; W. A. Walden, Atlanta, Ga.
Master Car Builders—J. B. Vaughan, Richmond; J. C. Holt, Company's Shops, N. C.: Z. T. Smith, Atlanta, Ga.
Master Car Painter—W. S. Ledford, Richmond.
Div. Supt.—W. H. Green, Richmond; A. B, Andrews, Raleigh, N. C.; E. Berkeley, Atlanta, Ga.
Road Masters—W. D. Lamb, West Point, Va.; H. L. Fry, Amelia C. H., Va.; John A. Dobson, Greensboro, N. C.; W. P. Raiford, Princeton, N. C.; C. P. Hammond, Atlanto, Ga.

RIHCMOND, FREDERICKSBURG & POTOMAC—Richmond, Va., to Quantico, Va., 81.7 miles. Std. G.
Pres.—J. P. Brinton, Richmond, Va.
Gen. Supt.—E. T. D. Myers, " "
Asst. Gen. Supt. and Pur. Agt.—T. L. Courtney, Richmond.
Sec. and Treas.—J. B. Winston, "
Aud.—L. P. Ellis, "
Supt. Motive Power and Mach.—H. Kuhn, "
Traffic Mgr.—C. A. Taylor, "
Master Car Builder—W. H. Trainham, "
Master Car Painter—W. G. Whitehurst, "

RICHMOND & MECKLENBURG—Keysville, Va., to Clarksville, Va., 31.5 miles.
Pres.—Jno. B. McPhail, Charlotte Co., Va
Sec.—Jno. B. Easley, Meclenburg Co., Va.

RICHMOND & PETERSBURG—Richmond, Va., to Petersburg, Va., 22.5 miles. Std.G.
Pres.—Fred R. Scott, Richmond, Va.
Gen. Mgr.—H. Walters, Baltimore, Md.
Gen. Supt.—J. F. Divine, Wilmington, N.C.
Supt.—R. M. Sully, Richmond, Va
Treas.—M. W. Yarrington, " "
Aud. and Pur. Agt.—L. E. Clark, " "
Traffic Mgr.—Sol. Haas, " "
Gen. Pass. and Ticket Agt.—T. M. Emerson, Wilmington.
Gen. Bag. Agt.—Jas. H. Hill, Richmond.
Master Mech. and Car Builder—Jno. O'Brien, Richmond.
Eng. Railways.—B. R. Dunn, Wilmington, N.C.
Road Master—H. N. Robinson, Belfield.

RICHMOND, YORK RIVER & CHESAPEAKE—(See Richmond & Danville).

RIO GRANDE—Brownsville, Tex., to Point Ysabel, 22.5 miles. G. 3·6 in.
Pres.—Alex. Werbiski, Brownville, Tex.
Trustees—F. San Roman, Simon Celaya, "
Chief Eng. and Supt. Motive Power and Mach.—Geo. W. Rendall, Brownville, Tex.
Sec. and Treas.—Wm. A. Valls, " "
Gen. Pass. and Freight Agt.—H. Sherwood, Brownville, Tex.
Master Car Builder—H. Markwood, " "

RIO GRANDE & PECOS—Laredo, Tex., to Brazos Santiago, Tex., 251.5 miles. Std.G.
Recr.—H. Cavalier Smith, Laredo, Tex.
Pres.—A. C. Hunt, " "
Supt.—Jas. Witherspoon, " "
Sec.—Mark Shaffenburg, " "

ROCHESTER & GENESEE VALLEY—Rochester to Avon, N. Y., 18.26 miles.
Pres.—Jas. Brackett.
Sec. and Treas.—J. B. Perkins, Rochester, N. Y.

ROCHESTER, NEW YORK & PENNSYLVANIA—Nunda, N. Y., to Swain's, N. Y., 11.75 miles. Std. G.
Pres.—Archer N. Martin.
Sec. and Treas.—Chas. E. Kimball, New York.

ROCHESTER & ONTARIO BELT—Irondequoit Bay, N.Y., to Genesee R., 12.74 miles. Std. G.
Pres.—J. R. Dillon, 5 Wall st., N. York City.
Sec. and Treas.—A. M. Klemm, "
Chief Eng. and Act. Supt.—W.E.Hoyt, Rochester.

ROCHESTER & PITTSBURGH—Rochester, N. Y., to Salamanca, N. Y., 278.17 miles. Std. G.
Pres.—Walston H. Brown, New York.
Vice Pres.—Geo. F. Stone, "
Gen. Mgr. and Pur. Agt.—Geo. E. Merchant, Rochester.
Gen. Supt.—James T. Gardner, "
Div. Supt.—E. W. Jordan, Buffalo, N.Y.
Chief Eng.—William E. Hoyt, Rochester.
Asst. Chief Eng.—J. M. Floesch. "
Div. Engs.—F. W. Gilcreast, Bradford, Pa.; E. G. Boughton, Du Bote, Pa.
Sec.—Thomas F. Wentworth, New York.
Treas.—Fred. A. Brown, "
Aud.—John F. Dinkey, Rochester.
Gen. Pass. Agt.—Isaiah S. Emery, "
Gen. Freight Agt.—James M. Sawyer, "
Mast. Mech. and Mast. Car Bldr.—Jacob P. Hovey, Rochester.
Div. Mast. Mechs.—C. F. Newman, Buffalo, N. Y.; M. E. Donnelly, Du Bois, Pa.; C. J. Cooper, Bradford, Pa.
Foreman of Car Rep'rs—W.H.Angell, Rochester.
Mast. Car Painter—T. N. LeRoss, "
Gen. Road Master—F. C. Whitelock, "
Supervisors—John McGarvey, Du Bois, Pa.; Henry Warie, Springfield, N. Y.; M. C. Caskey, Du Bois, Pa.

ROCK ISLAND & MERCER COUNTY—(See Rock Island and Peoria).

ROCK ISLAND & PEORIA—Rock Island, Ill., to Peoria, Ill., 91 miles. Std G.
Pres.—Cornelius Lynde, Rock Island, Ill.
Vice Pres.—R. R. Cable, "
Supt., Sec., Treas. and Pur. Agt.—H. B. Sudlow, Rock Island, Ill.
Aud.—H. C. Whitridge, "
Gen. Ticket and Freight Agt.—R. Stockhouse, Rock Island, Ill.
Supt. Telg.—J. P. Loomy, "
Mast. Mech.—Joseph Elder, Peoria.
Road Master—J. E. Lentz, Galva, Ill.

ROCKY MOUNTAIN—Livingston, Mont., to Cannabar, 51.70 miles.
Sec.—Geo. H. Adams, Mills' Bldg., New York.

ROGRSVILLE & JEFFERSON—Rogersville Junc., Tenn., to Rogersville, Tenn., 15.5 miles G. 5 ft.
Pres. and Gen. Mgr.—H. N. Aiken, Knoxville, "
Supt.—C. M. Lentz, Rogersville, Tenn.
Sec. and Treas.—Jas. Cooper, " "
Road Master—Wm. Price, Austin's Mills, "

ROME—Kingston, Ga., to Rome, Ga., 20 m'ls. G. 5 ft.
Pres., Gen. Supt., Treas. and Pur. Agt.—E. Hillyer, Rome, Ga.
Sec.—H. A. Pattillo, "
Gen. Pass. and Freight Agt.—Jas. A. Smith, Rome, Ga.
Supt. Motive Power and Mach., and Road Master—O. W. Harbin, Rome, Ga.

ROME AND CLINTON—Rome, N. Y., to Clinton, N. Y., 12.7 miles.
Pres.—Wm. S. Bartlett.
Sec. and Treas.—Andrew W. Mills, Clinton, N.Y.

ROME, WATERTOWN & OGDENSBURG—Rome, N.Y., to Ogdensburg, N.Y.; Oswego, N. Y., to Lewiston, N. Y., 417.8 miles. Std. G.
Pres.—Charles Parsons, 10 Pine st., New York.
Vice Pres.—C. S. Day, 45 Wall st., "
Asst. to Pres.—Charles Parsons, Jr., 10 Pine st., "
Gen. Mgr. and Pur. Agt.—H. M. Britton, Oswego.
Treas.—J. A. Lawyer, Watertown.
Sec.—R. E. Simley, "
Aud.—C. L. Martin, Oswego.
Gen. Freight Agt.—E. M. Moore, "
Gen. Bag. Agt.—T. M. Petty, "
Supt. Trans.—W. W. Currier, "
Supt. Motive Power and Mach. and Mast. Car Bldr.—Geo. H. Haselton, Oswego, N. Y.
Foreman Loco. Reps.—E. Van Vleck, Oswego.
Foreman of Car Rep'rs—W.E.Rockfellow, "
Foreman Car Painters—D. E. Brown, "
Div. Supts.—J. D. Remington, Watertown, N. Y.; W. H. Chauncey, Owego,
Gen. Road Master—H. A. Smith, Oswego,
Asst. Road Masters—S. Littlefield, Oswego, N. Y.; S. Bishop, Oswego, N. Y.; E. Dennison, De Kalb, N.Y.; C. Bowers, Rome, N. Y.
Gen. Pass. Agt.—W. F. Parsons, Oswego, N. Y.

RUMFORD FALLS AND BUCKFIELD—Mechanics' Falls, Me., to Gilbertville, Me., 30 miles. Std. G.
Pres.—W. L. Putnam, Portland, Me.
Vice Pres.—Otis Hayford, Canton, "
Gen. Supt. and Road Master—L. L. Lincoln, Portland, "
Chief Eng.—S. L. Stephenson, Gorham, "
Treas.—S. C. Andrews, Portland, "
Gen. Ticket Agt.—R. C. Bradford, Portland, "
Gen. Freight and Pur. Agt. and Master Mech.—L. L. Lincoln, Portland, Me.
Foreman Loco. Repairs—M. R. Davis, Canton, "

RUTLAND—Bellows Falls, Vt., to Burlington, Vt., 120 miles. Std. G.
Pres.—Charles Clement, Rutland, Vt.
Treas.—John A. Mead, " "
Clerk of Board—J. C. Barrett, " "

S.

SABINE & EAST TEXAS—Sabine, Texas, to Rockland, Texas, 103.57 miles.
Pres.—J. F. Crosby, Houston, Tex.
Sec. and Treas.—J. E. Gates, New York.

SABINE PASS & TEXAS NORTHERN—Marshall, Texas, to Sabine Pass, Gulf of Mexico, 218 miles.
Pres.—R. H. Parks, New York.
Vice Pres.—Chas. M. Raguet, Marshall, Tex.
Sec.—W. B. Hotchkiss, New York,
Treas.—R. H. Parks, "
Asst. Sec.—W. C. Pierce, Marshall, Tex.
Supt. Const.—C. C. Campbell, " "

SACRAMENTO & PLACERVILLE—Sacramento, Cal., to Shingle Springs, Cal., 47.71 miles. Std. G.
Pres.—Leland Stanford, San Francisco, Cal.
Vice Pres.—Chas. F. Crocker, " "
Treas.—Timothy Hopkins, " "
Sec—W. V. Huntington, " "

SAGINAW BAY & NORTHWESTERN—Pincoming, Mich., into the Pine Woods, 42.9 miles. Std. G.
Pres.—Ashley Pond, Detroit, Mich.
Treas.—C. A. Waterman, "

SAGINAW & CLARE COUNTY—Farewell, Michigan, northward, 75.5 miles.
Pres.—W. W. Crapo, New Bedford, Mass.

SAGINAW, TUSCOLA & HURON—East Saginaw to Bayport, Mich., 47.65 miles. G. 3 ft.
Pres.—Wm. L. Weber, East Saginaw, Mich.
Vice Pres.—Geo. W. Morley, " "
Sec. and Treas.—Eras. T. Judd, " "
Gen. Supt.—M. B. Wilkinson, " "
Chief Eng.—R. W. Roberts, " "

SAGINAW VALLEY & ST. LOUIS—Ithaca to East Saginaw, Mich., 45.8 miles. Std. G.
Pres.—A. Hardy, Boston, Mass.
Vice Pres.—Chas. Merriam, "
Sec. and Treas.—Chas. Merriam, "
Mgr. Director—J. B. Mulliken, Detroit, Mich.
Supt.—N. W. Morrill, Saginaw, Mich.
Gen. Acc'nt.—J. F. Riekie, Detroit, Mich.
Gen. Pass. and Freight Agt.—W. A. Carpenter, Detroit, Mich.

SAGINAW & WESTERN—(See Detroit, Lansing & Northern).

ST. CROIX & PENOBSCOT—Calais, Me., to Princeton, Me., 22 miles. Std. G.
Pres.—Geo. M. Porter, St. Stephen, N. B.
Gen. Mgr. and Pur. Agt.—S. W. Hayoock, Calais, Me.
Chief Eng.—D. S. Maxwell, Calais, Me.
Sec. and Treas.—Samuel Black, "
Aud.—L. G. Downes, "
Gen. Pass. and Ticket Agt.—H. A. Black, Calais, Me.
Gen. Bag. and Freight Agt.—John Larner, Calais, Me.
Fuel Agt—Martin Ryans, Baring, Me.
Master Mech.—Geo. H. Corson, Milltown, Me.
Master Car Builder—H. C. Tinker, "
Foreman of Car Repairs—Geo A. Hanson, Milltown, Me.
Master Car Painter—Wm. Leeman, Calais, Me.
Road Masters—Geo. Moore, Calais, Me.; Wm. Lucas, Jr., Milltown, Me.; Simeon Phinney, Baring, Me.

ST. JOHN & MAINE—Fairville, N. B., to Vanceboro, Me., 92 miles. Std. G.
Pres.—Geo. Weed, London, Eng.
Sec.—Geo. Bischoff, Jr., "
Accnt. and Cashier—A. McNaughton, St. John, N. B.
Auds.—C. F. Kempford & Co., London, Eng.; T. B. Robinson, St. John, N. B.

ST. JOHNS—Tocoi, St. Johns River, Fla., to St. Augustine, Fla., 15 miles. Std. G.
Pres. and Supt.—R. McLaughlin, Jacksonville.
Sec.—Jno. Westcott, St. Augustine.
Treas.—John Stockton, Jacksonville, Fla.
Freight and Ticket Agt.—F. M. Clark, Tocoi, Fla.
Master Mech.—J. M. Owens, St. Augustine, Fla.

ST. JOHNS & LAKE EUSTIS — (See Florida Southern).

ST. JOHNSBURY & LAKE CHAMPLAIN—Lunenburg, Vt., to Maquam, Vt., 127 miles. Std. G.
Pres.—A. B. Harris, Springfield, Mass.
Vice Pres.—Franklin Fairbanks, St. Johnsbury, Vt.
Gen. Supt. and Pur. Agt.—A. B. Jewett, St. Johnsbury, Vt.
Chief Eng. and Fuel Agt.—J. R. Rust, St. Johnsbury, Vt.
Sec. and Treas.—Wm. P. Fairbanks, St. Johnsbury, Vt.
Gen. Pass. and Freight Agt.—C. H. Stephens, St. Johnsbury, Vt.
Master Mech.—Geo. E. Howe, "
Road Masters—H.W. Varnum, Cambridge Junc., Vt.; Geo. A. Hart, St. Johnsbury, Vt.

ST. JOSEPH & DESLOGE—Bonne Terre, Mo., to Summit, Mo., 13 miles. G. 3 ft.
Supt.—T. T. Onderdonk, Bonne Terre, Mo.

ST. JOSEPH & DES MOINES—St. Joseph, Mo., to St. Albans, Mo., 50 miles. G. 3 ft.
Pres.—W. W. Baldwin, Burlington, Ia.
Vice Pres. and Gen. Mgr.—J. F. Barnard, St. Joseph, Mo.
Gen. Supt.—J. R. Hardy.
Asst. Supt.—D. H. Winton, St. Joseph, Mo.
Chief Eng.—C. C. Chandler, St. Louis, Mo.
Treas.—H. B. Scott, Burlington, Ia.
Sec., Asst. Treas. and Aud.—C. M. Carter, St. Joseph, Mo.
Gen. Pass. and Ticket Agt.—A. C. Dawes, St. Joseph, Mo.
Gen. Bag. Agt.—M. B. Starring, Chicago.
Gen. Freight Agt.—E. J. Swords, St. Joseph, Mo.
Pur. Agt.—Geo. W. Stephens, Chicago.
Fuel Agt.—A. B. Barnard, St. Joseph, Mo.
Master Mech.—F. A. Chase, "
Foreman of Car Repairs—Thos. Aylesbury, St. Joseph, Mo.
Master Car Painter—C. F. Harral, "
Road Master—Jos. Hayward, "
Supt. of Buildings and Bridges—L. H. Morse, St. Joseph, Mo.

ST. JOSEPH & ST. LOUIS—North Lexington, Mo., to St. Louis, Mo., 82.1 miles.
Pres.—W. S. Nisbet.
Vice Pres.—Chas. White.
Sec. and Treas.—W. H. Hollister, New York.

ST. JOSEPH & WESTERN—St. Joseph, Mo., to Grand Island, Neb., 251.7 miles. Std. G.
Pres.—Chas. Francis Adams, Jr., Boston.
Gen. Mgr.—L. D. Tuthill, St. Joseph, Mo.
Sec.—Alex. Millar, Boston, Mass.
Treas.—A. M. Saxton, St. Joseph, Mo.
Aud.—E. R. Brandon.
Freight and Ticket Aud.—C. F. Smith.
Gen. Pass. and Freight Agt.—A. A. Goer.
Master Mech.—Ed. Sleppy.
Gen. Foreman—J. Rabideux.
Master Trans.—C. A. Fleming.
Foreman Car Repairs—E. Hansen.
Road Master—Wm. Williams.
Principal office, New York.

ST. LAWRENCE & OTTAWA—Prescott, Ont., to Ottowa, Ont., 59 miles. Std. G.
Gen. Supt.—Archer Baker, Montreal Can.

ST. LOUIS, ALTON & TERRE HAUTE—East St. Louis, Ill., to Terre Haute, Ind. 331.5 miles. Std. G.
Pres.—W. Bayard Cutting, New York.
Vice Pres., Gen. Mgr. and Treas.—Geo. W. Parker, St. Louis, Mo.
Sec.—E. F. Leonard, Springfield, Ill.
Master Trans.—W. S. Wilson, Belleville, Ill.
Gen. Pass., Bag., Ticket and Freight Agt.—B. F. Blue, St. Louis, Mo.
Aud. and Pur. Agt.—H. T. Nash, "
Supt. Telg.—W. S. Wilson, Belleville, Ill.
Master Mech. and Car Builder—R. M. Pringle, East St. Louis, Ill.
Supt.—J. L. Hinckley, East St. Louis, Ill.
Road Master—Henry Mason, Belleville, Ill.

ST. LOUIS BRIDGE & TUNNEL—31 miles. Std. G.
Pres.—Julius S. Walsh, St. Louis.
Vice Pres. and Gen. Mgr.—Wm. Taussig, "
Gen. Supt.—A. W. Dickinson, "
Consulting Eng.—C. Shaler Smith, Bridge Entrance, St. Louis.
Gen. Freight Agt.—W. G. Broughton, "
Pur. Agt.—J. E. Williams, Jr, "
Master Mech.—H. M. Smith, "
Asst. Sec.—V. W. Fisher, "
Aud.—James Hanna, "
Road Master—Jno. Wynn, "
Master Mech.—H. M. Smith, "

ST. LOUIS CENTRAL — (See St. Louis Coal).

ST. LOUIS COAL — Carbondale, Ill., to Harrison Junc., Ill., 92.66 miles. Std. G.
Pres. and Gen. Mgr.—E.C. Dawes, St. Louis, Mo.
Vice Pres. and Treas.—J. E. McGettigan, St. Louis, Mo.
Gen. Supt., Pass., Freight and Pur. Agt.—R. J. Cavett, Pinckneyville, Ill.
Asst. Gen. Freight and Pass. Agt.—C. H. Bosworth, Pinckneyville, Ill.
Master Trans. and Supt. Telg.—H. H. Brown, Pinckeyville, Ill.
Sec.—Sam. Brush, Carbondale, Ill.
Aud.—E. Brown, St. Louis, Mo.
Supt. Motive Power and Mach.—Jno. Fleming, Harrison, Ill.
Road Master—Jas. Anderson, Carbondale, Ill.

ST. LOUIS & CAIRO—Cairo, Ill., to East St. Louis, Ill., 160.6 miles. G. 3 ft.
Pres.—W. F. Whitehouse, New York.
Vice Pres.—S. C. Judd, Chicago, Ill.
Gen. Supt.—Chas. Hamilton, St. Louis, Mo.
Sec.—Wm. Ritchie, Chicago, Ill.
Aud.—W. W. Booraem, St. Louis, Mo.
Road Master—Richard Boyle, Sparta, Ill.
Asst. Gen. Freight and Ticket Agt.—R. Bell, St. Louis, Mo.
Cash.—Geo. S. Pearce, "
Master Mech.—R. M. Pringle, "
Supt. Bridges—T. J. Wilkinson, Sparta, Ill.

ST. LOUIS, COUNCIL BLUFFS & OMAHA—Chillicothe, Mo., to Pattonsburg, Mo., 43.2 miles.
Pres.—J. R. Lionberger, St. Louis, Mo.
Vice Pres.—A. L. Hopkins, New York City.
Sec. and Treas.—Jas. F. How, St. Louis, Mo.

ST. LOUIS, CREVE CŒUR & ST. CHARLES—Grand Avenue, St. Louis, Mo., to Floussant, Mo., 16 miles. G. 3 ft.
Pres.—M. A. Downing, St. Louis.
Vice Pres. and Gen. Mgr.—F. M. Colburn, St. Louis.
Master Mech.—E. W. Church, Florissant, Mo.
Sec. and Treas.—S. H. Cobb, St. Louis.

ST. LOUIS, FT. SCOTT & WICHITA—160 miles. Std. G.
Pres.—R. S. Hayes, St. Louis, Mo.
Vice Pres. and Gen. Supt. and Pur. Agt.—J. W. Miller, Ft. Scott, Kan.
Chief Eng.—N. S. Woods, El Dorado, Kan.
Treas.—A. H. Calef, New York.
Aud.—J. H. Dowland, Ft. Scott.
Master Mech. and Car Builder—H. Berger, Ft. Scott, Kan.
Road Master—Jno. Gaffney, Toronto, Kan.

ST. LOUIS, HANNIBAL & KEOKUK—Hannibal, Mo., to No. Gilmore, 81.72 miles. Std. G.
Recr. and Mgr.—E. C. Case, Hannibal, Mo.
Aud.—F. C. Cake, Jr., " "
Gen. Agt.—M. T. Case, St. Louis, "
Gen. Freight Agt.—W. W. Driggs, Hannibal, Mo.
Supt. Telg.—P. E. Fisher, " "
Master Mech. and Car Builder—E. W. Hoisington, Hannibal, Mo.
Road Master—G. P. Brown, Bowling Green, "
Supt. of Bridges—Sherman Driggs, Frankford, "

ST. LOUIS, DES MOINES & NORTHERN—G. 3. Miles operated, 43.
Pres.—G. M. Dodge, New York.
Vice Pres.—F. M. Hubbell, Des Moines, Ia.
Gen. Supt.—C. F. Meek, " "
Sec. and Treas.—J. T. Granger, No. 1 Broadway, New York.
Gen. Pass. and Ticket Agt.—T. L. Jelley, Des Moines, Ia.
Road Master—J. H. Sullivan, " "

ST. LOUIS, IRON MOUNTAIN & SOUTHERN—St. Louis, Mo., to Texarkana, Tex., 905 miles. Std. G.
Pres.—Jay Gould, New York.
First Vice Pres.—R. S. Hayes, St. Louis.
Second Vice Pres.—A. L. Hopkins, New York.
Third Vice Pres.—H. M. Hoxie, St. Louis.
Sec. and Treas.—H. H. Calef, New York.
Asst. Sec.—S. D. Barlow, St. Louis, Mo.
Local Treas.—D. S. H. Smith, "
Gen. Aud.—C. G. Warner, "
Supt.—Wm. Kerrigan, "
Master of Mach.—John Hewett, "
Gen. Traffic Mgr.—Geo. Olds, "
Gen. Ticket Agt.—F. Chandler, "
Land Comr.—T. Essex, "
Res. Eng.—H. McLaughlin, "
Pur. Agt.—R. B. Lyle, "
Supt. of Bridges—J. E. Wallace, Little Rock, Ark.
Supt. of Car Dept.—Jno. Hodge, St. Louis, Mo.

ST. LOUIS, JACKSONVILLE & CHICAGO—Godfrey, Ill., to Bloomington, Ill., 156.6 miles. Officers, (See Chicago & Alton).

ST. LOUIS, KEOKUK & NORTHWESTERN—Keokuk, Ia., to St. Peters, Mo., 215.37 miles. Std. G.
Pres.—W. W. Baldwin, Burlington, Ia.
Vice Pres. and Gen. Mgr.—T. J. Potter, Chicago.
Gen. Supt.—R. Law, Keokuk, Ia.
Asst. Supt.—C. M. Levey, "
Sec., Asst. Treas. and Asst. Aud.—H. Elliott, Keokuk, Ia.
Treas.—J. C. Peasley, Chicago, Ill.
Gen. Pass. and Freight Agt.—J. H. Best, Jr., Keokuk.
Gen. Bag. Agt.—M. B. Starring, Chicago.
Pur. Agt.—Wm. Irving, "
Supt. Motive Power and Mach.—W. H. Bartlett, Keokuk.
Road Masters—F. E. Sawyer, P. E. Atherton, Keokuk.
Supt. Bridge and Build. Dept.—S. F. Clapp, Keokuk.
Supt. Telg.—W. E. Cunningham, "

ST. LOUIS, OTTUMWA & CEDAR RAPIDS.—Coatesville, Mo., to Ottumwa, Mo., 4.622 miles.
Pres.—J. H. Scudder.
Vice Pres.—J. R. Lionberger.
Sec.—Jos. Sloan, Ottumwa, Mo.
Treas.—E. P. Curtis, St. Louis, Mo.
Asst. Treas.—W. A. McGrew, "

ST. LOUIS, ROCK ISLAND & CHICAGO—(See Chicago, Burlington & Quincy).

ST. LOUIS, SALEM & LITTLE ROCK—Cuba, Mo., to Salem, Mo., 72.2 miles. Std. G.
Pres.—A. L. Crawford, New Castle, Pa.
Vice Pres. and Pur. Agt.—H. A. Crawford, St. Louis.
Supt., Gen. Pass., Ticket and Freight Agt.—E. B. Sankey, Salem.
Sec. and Treas.—Wm. Brewster, Erie, Pa.
Asst. Sec. and Treas.—E. L. Foote, St. Louis, Mo.
Master Mech.—Thos. Everson, Steelville, Mo.
Master Car Builder—Jno. W. Houston, " "

ST. LOUIS & SAN FRANCISCO—St. Louis to Seneca, Mo., 77.6 miles. Std. G.
Pres.—Gen. E. F. Winslow, New York.
Vice Pres. and Gen. Mgr.—C. W. Rogers,
Supt. of Trans.—D. H. Nichols, Springfield, Mo.
Chief Eng.—Jas. Dun, St. Louis.
Div. Eng.—J. F. Hinckley, "
Sec. and Treas.—T. W. Lillie, New York.
Aud.—A. Douglas, St. Louis
Gen. Pass. and Ticket Agt.—D. Wishart, " St. Louis.
Gen. Freight Agt.—G. W. Cale, "
Pur. Agt.—A. P. Man, Jr., "
Fuel Agt.—M. G. Moist, Springfield, Mo.
Master Mech.—M. Kearney, "
Foreman of Loco. Repairs—J. R. McCabe, Springfield, Mo.
Foreman of Car Repairs—Frank Doyle, Springfield, Mo.
Foreman Car Painters—Isaac Price, " "
Div. Supts.—A. Veech, St. Louis; W. A. Thoms, Springfield, Mo.; J. R. Wentworth, Neodesha, Kan.
Gen. Road Master—S. Lyman, Springfield, Mo.
Div. Road Masters—D. Cronan, Rolla, Mo.; J.

McCarty, Lebanon, Mo.; H. Tyson, Pierce City, Mo.; J. Mooney, Rogers, Ark.; W, Williams, Vinita, I. T.; J. Moore, Carl Junc. Kan.; B. Thrall, Augustus, Kan.

ST. LOUIS, VANDALIA & TERRE HAUTE—(See Terre Haute & Indianapolis).

ST. MARTINS & UPHAM—St. Martins, N. B., to Hampton, N. B., 29.12 miles. Std. G.
Pres.—Gilbert W. Titus, Bloomfield, N. B.
Gen. Mgr. and Pur. Agt—A. E. Killam, St. Martins, N. B.
Gen. Supt., Treas., Aud., Gen. Pass., Ticket, Bag., Freight and Fuel Agt.—F. A. Tingley, St. Martins, N. B.
Sec. and Treas.—Geo. Barnes, Hampton, N. B.
Aud.—H. G. Colpetts, Petitcodiac, N. B.

ST. PAUL & DULUTH—St. Paul to Duluth, Minn., 208 miles. Std. G.
Pres.—Jas. Smith, Jr., St. Paul, Minn.
Vice Pres.—W. H. Rhawn, Philadelphia, Pa.
Chief Eng.—Henry Swanson, St. Paul, Minn.
Sec. and Treas.—P. S. Harris, "
Aud.—F. W. Davis, "
Gen. Pass., Ticket and Freight Agt.—E. F. Dodge, St. Paul.
Pur. Agt.—J. H. Callahan, "
Fuel Agt.—E. D. McDonald, "
Master Mech.—W. McFarland, "
Foremen of Loco. Repairs—W. P. Robinson, E. McFarland, St. Paul.
Master Car Builder—John Hill, St. Paul.
Road Master—M. D. Kelly, "
Foreman Paint Shop—John Casey, "
Foreman Car Shop—Jos. P. Race, "

ST. PAUL & EASTERN GRAND TRUNK—Oconto, Wis., to Oconto Falls, 15 miles. Std. G.
Pres.—Thad. C. Pound, Chippewa Falls, Wis.
Gen. Supt., Sec. and Pur. Agt.—Dana C. Lamb, Oconto, Wis.
Chief Eng.—Fred Kirchman, "
Sec. and Treas.—Wm. H. Young, "
Aud.—Geo. Bever, "
Traffic Mgr., Gen. Pass., Picket, Bag. and Freight Agt.—Edw. G. Mullen, Oconto, Wis.

ST. PAUL, MINNEAPOLIS & MANITOBA—St. Paul, Minn., to Manitoba Line; East Minneapolis, Minn., to Manitoba Line, 1,350.32 miles. Std. G.
Pres.—James J. Hill, St. Paul, Minn.
Gen. Mgr.—Allen Manvel, "
Asst. Gen. Supt.—E. B. Wakeman, "
Chief Eng.—A. D. Miller, "
Sec. and Treas.—E. E. Sawyer, "
Aud.—S. S. Breed, "
Traffic Mgr.—W. S. Alexander, "
Asst. Gen. Pass. Agt.—H. C. Davis, "
Gen. Freight Agt.—A. S. Mohler, "
Pur. Agt.—S. C. Morrison, "
Fuel Agt.—R. D. Bloomfield, "
Master Mech.—Thos. Downing, "
Div. Supts.—W. S. Kemp, J. B. Rice, St. Paul, Minn.; A. Guthrie, Crookston, Minn.
Road Masters—J. G. Brennan, St. Paul, Minn.; John Malloy, Crookston, Minn.; John Mayer, Delano, Minn.; J. J. Brennan, Crookston, Minn.

ST. PAUL & NORTHERN PACIFIC—Brainerd, Minn., to Sauk Rapids, Minn., 60.5 miles. Std. G.
Pres.—Robt. Harris, New York.
Vice Pres.—Ed. D. Adams, "
Sec. and Treas.—Geo. S. Jones, "
Compt. and Land Comr.—A. G. Postlethwaite, St. Paul, Minn.

SALEM—Elmer to Salem, N. J., 18 miles.
Pres.—Samuel Abbot.
Sec; and Treas.—Josiah Wistar, Salem.

SALINA & SOUTHWESTERN — Salina, Kan., to McPherson, Kan., 35.43 miles.
Pres.—Sidney Dillon, New York.
Vice Pres.—Elisha Atkins.
Sec. and Treas.—Henry McFarland, Boston, Mass.
Asst. Sec.—H. P. Dillon, Topeka, Kan.

SALISBURY — Salisbury Junc., Pa., to W. Salisbury, Pa., 11.2 miles. Std. G.
Pres.—W. S. Bissell, Pittsburg, Pa.
Gen. Supt.—J. T. Harahan, "
Sec. and Treas.—J. B. Washington, "

SALT LAKE & WESTERN—Lehi Junc., Utah, to Silver City, Utah, 56.61 miles.
Pres.—Sidney Dillon, New York.
Vice Pres. and Gen. Supt.—W. W. Riter, Salt Lake City.
Sec. and Treas.—Henry McFarland, Boston, Mass.
Chief Eng.—A. F. Doremus, Salt Lake City.

SANBORN, COOPERSTOWN & TURTLE MOUNTAIN—Sanborn, Dak., to Turtle Mountain, Dak., 200 miles.
Pres.—Thos. S. Oakes, New York.
Sec.—Geo. H. Adams, "

SANDY RIVER — Farmington, Me., to Phillips, Me., 18 miles. G. 2 ft.
Pres., Gen. Supt. and Pur. Agt.—N. B. Beal, Phillips, Me.
Asst. Gen. Supt.—Fred. N. Neal, "
Chief Eng.—Cyrus Hall, "
Asst. Chief Eng.—Millard Towle, "
Sec.—D. M. Bonney, Farmington, Me.
Treas., Gen. Pass. and Ticket Agt.—J. E. Thompson, Phillips.
Gen. Bag. Agt.—Rand E. Harden, "
Master Mech.—M. Saunders, "
Master Car Painter—M. S. Killey, "
Road Master—Wm. Wagg, "

SANDUSKY, MANSFIELD & NEWARK—Sandusky, O., to Newark, O., 116.25 miles. Std. G.

Pres.—John Gardiner, Norwalk, O.
Sec. and Treas.— J. O. Moss, Sandusky, O.
Gen. Mgr.—B. Dunham, Newark, O.

SANFORD & INDIAN RIVER—(See South Florida).

SAN FRANCISCO & NORTH PACIFIC—Donahue, Cal., to Cloverdale, Cal., 92.5 miles. Std. G.
Pres.—Peter Donahue, 430 Montgomery st., San Francisco, Cal.
Vice Pres.—Jas. M. Donahue, "
Gen. Mgr. and Pur. Agt.—A. Hughes, San Francisco, Cal.
Gen. Supt.—H. C. Whiting, San Rafael, Cal.
Asst. Gen. Supt.—W. G. Corbaley, "
Chief Eng.—Frank R. Zook, San Francisco, Cal.
Treas.—T. J. Bergin, "
Sec. and Aud.—Thos. W. Johnston, "
Gen. Pass. Agt.—Peter S. McGlynn, "
Gen. Bag. and Freight Agt.—Chas. Thorn, Jr., San Francisco, Cal.
Master Mech. and Car Builder—E. Reynolds, Donahue, Cal.
Road Master—Pat. Hyde, Santa Rosa, Cal.

SAN JOAQUIN & SIERRA NEVADA—Bracks, Cal., to Wallace, Cal., 30.3 miles. G. 3 ft.
Pres.—Fred. Birdsall, Sacramento, Cal.
Sec.—Edward F. Stone, San Francisco, Cal.
Treas.—The Pacific Bank, "

SAN PABLO & TULARE—Martuez to Tracy, Cal., 56.49 miles.
Pres.—Leland Stanford.
Vice Pres.—Chas. Crocker.
Treas.—Timothy Hopkins.
Sec.—H. V. Huntington, San Francisco.

SAN PETE VALLEY — Nephi, U. T., to Wales, U. T., 30 miles. G. 3 ft.
Pres.—Henry W. Tyler, London, Eng.
Vice Pres.—Thos. Marshall, Salt Lake City.
Master Mech.—B. Bates, Wales, U. T.
Gen. Supt.—F. C. Hand, "
Gen. Mgr.—Sim Bamberger, Salt Lake City.
Sec.—F. K. Morris, "
Road Master—Jas. Black, Wales.
Pur. Agt.—J. E. Bamberger, Salt Lake City.

SANTA CRUZ—Pajoro, Cal., to Santa Cruz, Cal., 21.2 miles.
Pres.—Geo. Crocker.
Sec.—J. L. Willcutt, San Francisco.
Treas.—N. T. Smith.
Principal office, Santa Cruz, Cal.

SARATOGA & SCHENECTADY—Saratoga to Schenectady, 27.59 miles.
Pres.—Geo. H. Cramer.
Treas.—Geo. H. Perry, Troy, N. Y.

SARATOGA LAKE — Saratoga Springs to Ketchum's Corners, 12.8 miles.
Pres.—Rudolph Keppler.
Treas.—S. Newton Smith.
Sec.—A. T. Smith, 120 Broadway, New York.

SARATOGA, MOUNT McGREGOR & LAKE GEORGE — Saratoga Springs, N. Y., to Caldwell, N. Y., 25 miles. G. 3 ft.
Pres.—Jno. Kellogg, Amsterdam, N. Y.
Vice Pres.—Wm. J. Arkell, Carrajoharie.
Gen. Mgr.—D. H. Fonda, Albany, N. Y.
Sec. and Treas.—N. S. Brumley, Carrajoharie, N. Y.
Supt. Motive Power and Mach.—Thomas Todd, Saratoga Springs, N. Y.
Road Master—Jacob Deyoe, "

SAVANNAH, FOLRIDA & WESTERN—Savannah, Ga., to Junc. (P. & A. R. R.), Fla., 479.53 miles. G. 5 ft.
Pres.—H. B. Plant, New York.
Vice Pres.—W. S. Chisholm, Savannah, Ga.
Gen. Mgr.—H. S. Haines, "
Supt.—R. G. Fleming, "
Asst Supt.—G. W. Haines, "
Compt.—W. B. McKee, "
Treas.—Wm. P. Hardee, "
Gen. Pass. and Freight Agt.—James L. Taylor, Savannah.
Pur. Agt.—A. A. Aveilhe, "
Master of Mach.—Geo. M. Riley, "
Foreman of Car Department—E. Giffken, Savannah.
Master Roadway—H. W. Reed, Waycross, Ga.
Chief Eng.—W. B. W. Howe, Jr., "
Sec.—R. B. Smith, New York.
Traffic Mgr.—C. D. Owens, Savannah.

SAVANNAH, GRIFFIN & NORTH ALABAMA—(See Central Railroad of Georgia).

SCHNECTADY & DUANESBURG—Quaker St. Junc., N. Y., to Schenectady, N. Y., 15.62 miles.
Pres.—Coe F. Young, Honesdale, Pa.
Sec. and Treas.—Jas. C. Hartt, New York.

SCHUYLKILL VALLEY — Palo Alto to Reevesdale, Pa., 27.7 miles.
Pres.—Geo. DeB. Keim, Philadelphia.
Treas.—P. C. Hollis, "

SCHUYLKILL & LEHIGH — High's Farm (below Reading) to Slatington, Pa., 44 miles.
Pres.—Jno N. Hutchinson.
Treas.—Jno. Welch, Phila., Pa.

SCIOTO VALLEY — Columbus, O., to Ashland, Ky., 132 miles. Std. G.
Pres.—F. H. Davis, New York.
Vice Pres.—W. W. Franklin, Columbus, O.
Supt. and Pur. Agt.—Geo. Skinner, "
Asst. Supt. and Treas.—J. Robinson, "
Eng.—Julian Griggs, "
Sec.—Wm. P. Hillhouse, New York.
Aud.—James A. Fanning, Columbus, O.
Gen. Pass., Ticket and Freight Agt. — John J. Archer, Columbus, O.

Master Mech., Car Builder and Car Painter—R. Bromley, Portsmouth, O.
Road Master—T. G. Bothwell, Chillicothe, O.
Bridge Master—E. D. Hines, "

SEABOARD & ROANOKE — Portsmouth, Va., to Weldon, N. C., 80 miles. Std. G.
Pres. and Gen. Supt.—John M. Robinson, Md.
Supt. of Trans.—Enoch G. Ghio, Portsmouth Va.
Chief Eng.—T. J. Moncure, "
Sec. and Treas.—Wm. W. Chamberlaine, Portsmouth, Va.
Aud. and Pur. Agt.—J. A. Walton, "
Supt. of Road and Bridges—S. P. Hand, Portsmouth, Va.
Storekeeper—O. D. Ball, "
Foreman Loco. Repairs—C. W. Walker, Portsmouth, Va.
Foreman Car Repairs—D. W., Ballentine, Portsmouth, Va.
Supt. Motive Power and Mach.—M. M. Pendleton, Portsmouth, Va.

SEDALIA, WARSAW & SOUTHERN — Sedalia, Mo., to Warsaw, Mo., 42.25 miles. G. 3 ft.
Pres.—Jay Gould, New York.
Vice Pres.—R. S. Hayes, St. Louis, Mo.
Sec.—J. H. Howland, Sedalia, Mo.
Treas.—D. S. H. Smith, St. Louis, Mo.
Gen. Supt.—J. B. Van Dyne, Sedalia, Mo.

SHAMOKIN, SUNBURY & LEWISBURG —Shamokin, Pa., to West Milton, Pa., 31.1 miles.
Pres.—S. P. Wolverton, Sunbury, Pa.
Treas.—John Welsh.
Sec.—Howard Hancock, Phila., Pa.

SHAMOKIN VALLEY & POTTSVILLE — Sunbury to Mount Carmel, Pa., 47.12 miles.
Pres.—Geo. B. Roberts, Phila., Pa.
Treas.—Taber Ashton, "

SHARON — Sharon to Sharon Junc., Pa., 18 miles.
Pres.—Geo. Boyce Sharon, Pa.
Treas.—Chas. Hall, "
Sec.—John H. Dynes, Cleveland, O.

SHARPSVILLE — Sharpsville, Pa., to Wilmington Junc., 23.2 miles. Std. G.
Pres. and Gen. Mgr.—Thos. M. King, Baltimore, Md.
Vice Pres., Treas. and Aud.—J. B. Washington, Pittsburgh, Pa.
Sec.—S. K. Harris, "
Asst. Gen. Mgr.—W. C. Agnew, Sharpsville, Pa.
Gen. Freight Agt.—H. S. Burgesser, Pittsburgh, Pa.

SHELBY — Shelby Junc., Ky., to Shelbyville, Ky., 19.23 miles.
Pres.—A. P. Carrithers.
Sec.—S. S. Kirk, Shelbyville, Ky.

SHELBY & RUSH — (See J. M. & I. R. R.).

SHENANDOAH VALLEY—Hagerstown, Md., to Roanoke, Va., 238.11 miles. Std. G.
Pres.—Sidney F. Tyler, Phila., Pa.
Vice Pres.—U. L. Boyce, Boyce, P.O., Va.
Supt.—D. W. Flickwir, Roanoke, Va.
Sec.—A. J. Hemphill, Phila.
Traas.—G. R. W. Armes, "
Compt.—W. G. Macdowell, "
Gen. Ticket and Pass. Agt.—A. Pope, Roanoke, Va.
Gen. Freight Agt.—C. P. Hatch, "
Pur. Agt.—W. C. DeArmond, Phila., Pa.
Supt. Motive Power — C. Blackwell, Roanoke, Va.
Supvs. — Thos. Fitzgerald, Shepherdstown, W. Va.; Chas. Morgan, Luray, Va.; Thos. Eagan, Buchanan, Va.
Aud. Receipts—Jos. W. Coxe, Roanoke, Va.
Aud. Disb'ts.—E. E. Portland, "

SHENANGO & ALLEGHENY — Greenville, Pa., to Hilliard, Pa., 84.4 miles. Std. G.
Pres. and Recr.—T. P., Fowler, New York.
Gen. Mgr. and Pur. Agt.—J. T. Blair, Greenville, Pa.
Sec.—Jno. H. Beatty, "
Treas., Gen. Pass. and Ticket Agt.—I. D. Stinson, Greenville, Pa.
Aud.—P. E. McCray, "
Master Mech. and Car Builder—E. Richardson, Shenango, Pa.
Road Master—G. W. Considine, Fredonia, Pa.

SHEPANG — Litchfield to Hawleyville, Conn., 32.28 miles. Std. G.
Pres.—H. W. Buel, Litchfield, Conn.
Vice Pres. and Treas.—H. R. Coit, "
Supt.—E. McNeill, "
Sec.—Wm. Deming, "
Gen. Ticket, Freight and Pur. Agt.—E. McNeil, Litchfield, Conn.
Master Mech.—Andrew J. Broughel, "
Road Master—D. C. Garrison, Roxbury, Conn.

SHIP ISLAND, RIPLEY & KENTUCKY —Middleton, Tenn., to Ripley, Miss., 25 miles. G. 3 ft.
Pres.—W. C. Falkner, Ripley, Miss.
Gen. Mgr.—R. J. Thurmond, "
Gen. Supt., Sec., Treas., etc.—C. L. Harris, Ripley, Miss.

SHORE LINE—New Haven to New London, 59.45 miles.
Pres.—S. B. Chittenden, Brooklyn, N. Y.
Vice. Pres.—E. H. Trowbridge.
Sec. and Treas.—Wilbur F. Day, N. Haven, Conn.

SHORE LINE OF MAINE — Brewer, Me., to Hancock, 39.25 miles.
Pres.—Jos. N. Green, Bangor, Me.
Sec.—L. A. Emery, "
Treas.—H. E. Hamlin, "

SHORT CREEK & JOPLIN—27.16 miles.
Pres.—Geo. H. Nettleton, Kansas City Mo.
Treas.—Chas. Merriam, Boston.

SILVER CITY, DEMING & PACIFIC—Deming, N. M., to Silver City, N. M., 47.2 miles. G. 3 ft.
Pres.—Elijah Smith, Boston, Mass.
Vice Pres.—J. P. Whitney, "
Sec. and Treas.—G. L. Goodwin, "
Gen. Mgr.—A. A. Robinson, Topeka, Kan.
Gen. Aud.—J. P. Whitehead, Boston, Mass.

SINALOA & DURANGO—Altata, Mex., to Culiacan, Mex., 38.5 miles. Std. G.
Vice Pres. and Gen. Mgr.—Ed. P. North, New York.
Gen. Supt. and Pur. Agt.—Geo. S. Skilton, Culiacan, Sinaloa, Mex.
Treas.—S. W. Richardson, 65 Water st., Boston.
Mast. Mech.—John E. Bell, Caliacan, Mex.
Rd. Master—Frank Hawley, Altota, Mex.

SIOUX CITY AND PACIFIC—Sioux City, Ia., to Fremont, Neb., 418.54 miles. Std. G.
Pres.—Marvin Hughitt, Chicago, Ill.
Vice Pres.—M. L. Sykes, New York.
Gen. Mgr.—W. B. Linsley, Missouri Valley, Ia.
Gen. Supt.—C. M. Lawler, " " "
Train Mast.—E. T. Horn, Norfolk, Neb.
Chief Eng.—J. E. Ainsworth, Missouri Valley.
Sec. and Aud.—J. B. Redfield, Chicago, Ill.
Treas.—M. M. Kirkman, " "
Gen. Pass. and Ticket. Agt.—J. R. Buchanan, Missouri Valley.
Gen. Fgt. Agt.—K. C. Morehouse, Missouri Valley.
Pur. Agt.—R. W. Hamer, Chicago.
Supt. Telg.—I. B. Potter, Missouri Valley, Ia.
Mast. Mech.—S. A. Teal, " " "
Foreman Car Repairs—W. H. Ramseyer, Missouri Valley, Ia.
Foreman Painter—George Warlick, " "
Gen. Road Mast.—J. S. Wattles, Missouri Valley, Ia.
Supvs.—P. Stafford, Norfolk, Neb.; M. Stafford, O'Neil, Neb.; M. Johnson, Missouri Valley, Ia.

SMITHTOWN & PORT JEFFERSON—Northport to Port Jefferson, 19.15 miles.
Pres.—Jas. M. Bayles, Port Jefferson, N. Y.
Sec. and Treas.—J. Lawrence Smith.

SODUS BAY AND SOUTHERN—Sodus Point, N. Y., to Stanley, N. Y., 33.6 miles. Std. G.
Pres.—S. J. Macy, Rochester, N. Y.
Vice Pres.—E. H. Harriman, New York.
Gen. Mgr.—George H. Stearns, Sodus Point.
Sec.—W. A. Averill, Rochester, N. Y.
Treas.—S. B. Stewart, Sodus Point, N. Y.
Aud., Gen. Pass., Ticket and Bag. Agt.—Frank Youngs, Sodus Point, N. Y.
Mast. Mech.—Wm. Deal, " "
Mast. Car Builder—Charles H. Hill, Sodus Point, N. Y.
Road Mast.—Thomas Needham, Stanley, N. Y.

SOLOMON—Solomon, Kan., to Beloit, Kan., 57.4 miles.
Pres.—Sidney Dillon, New York.
Vice Pres.—Elisha Atkins.
Sec. and Treas.—Henry McFarland, Boston.
Asst. Sec.—H. P. Dillon, Topeka, Kan.

SOMERSET—Oakland, Me., to North Anson, Me., 25 miles. Std. G.
Pres.—John Ayer, Oakland, Me.
Supt. and Road Mast.—W. M. Ayer. Oakland, Me.
Sec.—Ed. Rowe, Norridgewock, Me.
Treas.—A. N. Small, Oakland, Me.
Foreman of Loco. Repairs—Charles Crowell, North Anson, Me.
Foreman Car Repairs—S. P. Mosher, Oakland, Me.
Foreman Car Painters—James Redmond, Oakland, Me.

SOMERSET & CAMBRIA—Rockwood, Pa., to Johnstown, Pa., 45.1 miles. Std. G.
Pres.—J. B. Washington, Pittsburgh Pa.
Sec.—W. McCullough, Greensburg, Pa.
Chief Eng.—J. L. Randolph, Martinsburgh, W. Va.
Treas.—W. H. Ijams, Baltimore, Md.
Gen. Supt.—T. M. King, Pittsburgh, Pa.

SONOMA VALLEY—G. 3. Miles operated' 21½.
Pres.—Peter Donahue, San Francisco, Cal.
Vice Pres. and Sec.—James M. Donahue, San Francisco.
Gen. Mgr.—Arthur Hughes, San Francisco.
Gen. Supt.—H. C. Whiting, Petaluma, Cal.
Asst. Supt.—J. T. Peters, Sonoma, Cal.
Aud.—Thos. W. Johnston, San Francisco.
Gen. Fgt. and Bag. Agt.—Charles Thorn, Jr., San Francisco.
Gen. Pass. and Ticket Agt.—P. J. McGlynn, San Francisco.
Master Mech.—E. Reynolds, Donahue, Cal.
Asst. Master Mech.—Samuel Lewis, Sonoma, Cal.

SONORA—Guaymas, Mex., northward to Nogales, 262.41 miles.
Asst. Gen. Mgr.—J. H. Scott, Guaymas, Mex.
Gen. Fgt. and Pass. Agt.—W. D. Ripley, Guaymas, Mex.
Asst. Aud.—Jas. Stevenson, " "
(Other officers same as Atchison, Topeka & Santa Fe).
Princ. office and address, 95 Milk st., Boston.

SOUTH CAROLINA—Charleston, S. C., to Augusta, Ga., 246 miles. G. 5 ft.
Pres.—H. B. Talmadge, New York.
Vice Pres.—I. J. Higginson, 24 Pine st., New York.
Gen. Mgr.—John B. Peck, Charleston, S. C.
Chief Eng.—A. D. Caradene, " "
Sec.—W. T. Miner, 68 William st., New York.
Treas.—Gaston Hardy, Charleston, S. C.
Aud.—L. C. Hendricks, " "
Gen. Pass. and Ticket Agt.—D. C. Allen, Charleston, S. C.
Gen. Bag. Agt.—C. N. Wells, " "

Gen. Fgt. and Pur. Agt.—S. B. Pickens, Charleston, S. C.
Supt. Motive Power and Mach.—P. J. Cochrane, Charleston.
Mast. Car Builder—G. H. Gramling, Charleston, S. C.
Mast. of Trans.—J. H. Averill, Charleston, S. C.
Road Master—James Trumble, Kingville, S. C.

SOUTH FLORIDA—Sanford, Fla., to Tampa, Fla., 115 miles. G. 3 ft.
Pres.—James E. Ingraham, Sanford, Fla.
Vice Pres.—R. M. Pulsifer, Boston, Mass.
Gen. Supt. and Pur. Agt.—B. R. Swoope, Sanford, Fla.
Chief Eng.—H. S. Haines, Savannah, Ga.
Eng. Maint. Way and Fuel Agt.—Louis McLain, Sanford, Fla.
Sec., Gen. Pass., Ticket and Freight Agt.—F. H. Rand, Sanford, Fla.
Treas.—C. C. Haskell, " "
Aud.—Wilber McCoy, " "
Supt. Motive Power and Mach.—R. Derby, Sanford, Fla.
Mast. Car Bldr—A. D. Stentiford, " "
Road Masters—F. A. Dickens, J. S. Oliver, Maitland, Fla.; W. S. Walker, Tampa, Fla.

SOUTHEAST & ST. LOUIS.—East St. Louis to Evansville, Ind., 160.6 miles.
Officers—(See Louisville & Nashville.)

SOUTHEASTERN—West Farnham, Que., to Richford, 260 miles. Std. G.
Trustees—W. C. Van Horne, Wm. Farwell, W. K. Blodgett.
Gen. Mgr.—T. A. MacKinnon, Montreal, Ont.
Asst. Supt.—H. Macdiarmid, Farnham, Que.
Treas.—A. B. Chaffee, Montreal.
Aud.—P. O. Ryan, "
Actg. Gen. Freight Agt.—W. H. Wardwell, Montreal.
Wood Agt.—A. F. Robinson, Waterloo, Bue.
Mech. Supt.—A. G. Eastman, Farnham, Que.
Foreman of Loco. Repairs.—Fred. Rothwell, Farnham, Que.
Foreman of Car Repairs—Henry Imphey, Farnham, Que.
Foreman Car Painters—C. E. Fetch, Farnham, Que.
Gen. Road Master—Gavin Shanks, Sutton, Can.
Division Road Masters—Wm. Moe, Farnham, Que.; Wm. Craig, Farnham, Que.; Wm. Houston, Farnham, Que.

SOUTH MOUNTAIN—Carlisle, Pa., to Pine Grove Furnace, Pa., 17.78 miles. Std. G.
Pres.—J. C. Fuller, Phila, Pa.
Sec., Treas and Supt.—Wm. H. Woodware, Pine Grove Furnace, Pa.

SOUTH AND NORTH ALABAMA—Decatur, Ala., to Montgomery, Ala., 188.88 miles. G. 5 ft.
Pres.—J. W. Sloss.
Sec. and Treas.—H. M. Bush, Montgomery, Ala.

SOUTHERN CENTRAL—Fairhaven, N. Y., to State Line, Penna., 154.2 miles. Std. G.
Pres.—Hon. T. C. Platt, New York.
Vice Pres.—D. W. Dwight, Dryden, N. Y.
Mang. Director—E. P. Wilber, Mauch Chunk, Pa.
Gen. Traffic Mgr.—John Taylor, " "
Gen. Supt. and Pur. Agt.—Jas. G. Knapp, Auburn, N. Y.
Aud. and Chief Eng.—E. F. Swart, "
Sec.—Gen. John N. Knapp, "
Treas.—C. L. Rich, "
Gen. Pass., Ticket and Freight Agt.—F. L. Pomeroy, Auburn, N. Y.
Gen. Bag. Agt.—Peter Mee, "
Acting Master Mech.—John White, "
Master Car Builder—H. Mooney, "
Master Car Painter—John Coonan, "
Road Master—E. R. Mills, "

SOUTHERN KANSAS—Lawrence, Kan., to Coffeyville, Kan., 398.58 miles. Std. G.
Pres.—W. B. Strong, Boston, Mass.
Gen. Mgr.—A. A. Robinson, Topeka, Kan.
Supt.—J. L. Barnes, Lawrence, Kan.
Eng.—T. S. McCoy, "
Sec.—E. Wilder, Topeka, Kan.
Treas.—G. L. Goddard, Boston.
Gen. Aud.—John P. Whitehead, "
Asst. Aud.—H. C. Whitehead, Lawrence, Kan.
Traffic Mgr.—J. F. Goddard, "
Gen. Pass., Ticket and Freight Agt.—S. B. Hynes, Lawrence, Kan.
Pur. Agt.—G. Hargreaves, Topeka, Kan.
Fuel Agt.—W. W. Allen, "
Master Mech.—T. D. Volk, Ottawa, Kas.
Road Master—J. D. Hildebrand, Lawrence, Kan.
Aud.—H. C. Whitehead, "
Gen. Bag. Agt.—H. K. Fleming, Ottawa, Kan.

SOUTHERN MARYLAND—Washington, D. C., to Point Lookout, Md., 123.6 miles. Std. G.
Pres.—John Van Riswick, Washington, D. C.
Vice Pres.—J. H. Linville, Philadelphia, Pa.
Chief Eng.—James L. Meigs, 64 Equitable Building, Boston, Mass.
Treas. and Sec.—T. A. Lambert, Brandywine, Me.
Pur. Agt. and Supt.—J. B. Kidgeway, Brandywine, Md.
Master Mech.—C. R. Joyce, "
Road Master—James Johnson, "
Principal office and address, Baltimore, Md.

SOUTH PACIFIC COAST—Newark to Junc. (Felton), Cal., 76.4 miles. G. 3 ft.
Pres.—A. E. Davis, San Francisco, Cal.
Gen. Supt.—L. Fillmore, "
Treas., Sec. and Aud.—Geo. H. Wagoner, Newark, Cal.
Gen. Pass., Ticket, Bag. and Freight Agt.—R. M. Garrett, San Francisco, Cal.
Master Mech. and Car Builder—D. E. Arnold, Newark, Cal.
Road Master—Wm. P. Drum, Alameda, Cal.
Chief Eng.—W. P. Drum, Felton, Cal.

Foreman Loco. Repairs—John Heim, Newark, Cal.
Foreman Car Repairs—Martain O'Niel, Alameda Point, Cal.
Gen. Acc't.—Chas. Iverson, San Francisco.

SOUTHERN PACIFIC—(See Central Pacific)

SOUTHERN PACIFIC OF ARIZONA—Colorado River Bridge to New Mexico Line, 384.17 miles.
Pres.—Chas. F. Crocker.
Sec. and Treas.—F. S. Doutz, San Francisco.

SOUTHERN PACIFIC OF NEW MEXICO—Arizona Line to Rio Grand Bridge, 167.22 miles.
Pres.—Chas. F. Crocker.
Treas.—R. P. Hammond.
Sec.—J. E. Foulds, San Francisco.

SOUTHERN PENNSYLVANIA—S. P. Junc. to Richmond, Pa., 26.92 miles.
Pres.—Thos. B. Kennedy.
Sec.—W. L. Ritchey, Chambersburg, Pa.

SOUTHWEST PENNSYLVANIA — Junc., Pa. R. R., to Fairhouse, Pa., 74.77 miles.
Pres.—N. Du Barry.
Treas.—Tabor Ashton, Phila., Pa.

SOUTHWESTERN — Macon, Ga., to Eufaula, Ala., 320 miles.
Pres.—J. E. Jones.
Sec. and Treas.—W. S. Brantly, Macon, Ga.

SPRINGVILLE & SARDINIA — Springville, N. Y., to Sardinia, N. Y., 11.57 miles. G. 3 ft.
Pres., Gen. Mgr. and Pur. Agt. — B. Chaffee, Springville, N. Y.
Vice Pres.—James Hopkins, Sardinia, N. Y.
Sec.—L. M. Cummings, Springville, N. Y.
Treas.—H. L. Vaughn, "
Aud.—W. W. French, "

SPUYTEN DUYVIL & FORT MORRIS — N. Y. C. & H. River R.R., to N.Y. & H. R. R., 12.42 miles.
Pres.—W. H. Vanderbilt.
Treas.—C. C. Clark, New York.

STANSTEAD, SHEFFORD & CHAMBLY—St. Johns, Que., to Waterloo, Que., 43 miles. Std. G.
Principal office, Waterloo, Quebec, Can.

STATE LINE & SULLIVAN—(See Lehigh Valley).

STATEN ISLAND — Clifton, N. Y., to Tottenville, N. Y., 13 miles. Std. G.
Pres.—J. F. Emmons, New Brighton, Staten Island, N. Y.
Vice Pres.—F. White, Castle Corners, " "
Gen Mgr.—H. H Wood, New Brighten, " "
Supt.—J. W. Wilbur, Tottenville, Staten Island, N. Y.
Chief Eng.—John T. Wilson, Phila., Pa.
Sec.—Wm. Kentgen, Stapleton, Staten Island, N. Y.
Treas.—Ed. Curry, Tompkinsville, " "
Pur. Agt.—W. H. Lewis, New York.
Principal office, foot of Whitehall st., N. Y.

STEWART — Hinsdale to Bethpage, 16.34 miles.
Mgr.—L. H. Cunliffe, Stewart Estate, Garden City, L. I.

STILLWATER & ST. PAUL — White Bear to Stillwater, Minn., 13 miles.
Pres.—James Smith.
Sec. and Treas.—Philip S. Harris, St. Paul, Minn.

STOCKBRIDGE & PITTSFIELD — Vandensenville to Pittsfield, Conn., 22 miles.
Pres.—D. R. Williams.
Treas.—D. A. Kimball, Stockbridge, Mass.

STOCKTON & COPPEROPOLIS — Stockton, Cal., to Oakdale, Cal., 48.58 miles.
Pres.—Leland Stanford.
Vice Pres.—Geo. Crocker.
Treas.—Timothy Hopkins.
Sec.—W. V. Huntington, San Francisco.

STOCKTON & AMADOR — 30 mls. G. 3 ft.
Pres.—E. G. Holden. San Francisco.
Vice Pres.—F. T. Baldwin, Stockton, Cal.
Chief Eng.—G. C. Holman, "
Sec.—Dr. R. R. Reid, "
Treas.—R. N. Tully, "

STONY CLOVE & CATSKILL MOUNTAIN — Phœnicia, N. Y., to Hunter, N. Y., 14.3 miles. G. 3 ft.
Pres. and Pur. Agt.—S. D. Coykendall, Rondout.
Vice Pres., Gen Supt., Gen. Pass. and Freight Agt.—Geo. Coykendall, Rondout, N. Y.
Treas.—Samuel Coles. "
Sec.—John C. Romeyn, "
Aud.—Oscar L. Eastman, "
Master Mech.—Joseph Rush, "

STONY BROOK — North Chelmsford, Mass., to Ayer, Mass., 14.11 miles.
Pres.—Jas. B. Frances.
Treas. and Clerk.—Jacob Rogers, Lowell, Mass

STONY CREEK — Norristown, Pa., to Lansdale, Pa., 11.15 miles. Std. G.
Pres.—Jas. Boyd, Norristown, Pa.
Supt. and Eng.—Geo. B. Boggs, "
Sec., Treas. and Pur. Agt.—Howard Boyd, Norristown, Pa.
Aud.—F. C. Boggs, "
Road Master—Joseph Kohl, "

STRASBURG & HARRISONBURG—(See B. & O. R. R.)

SUFFOLK LUMBER—Suffolk, Va., to North Carolina State Line, 15 miles. G. 3 ft.
Pres.—Wm. H. Jackson, Suffolk, Va.
Sec. and Treas.—E. E. Jackson, "
Supt.—W. M. Whaley, "

SULLIVAN COUNTY—Bellows Falls, Vt., to Windsor, Vt., 26 miles.
Pres.—A. B. Harris, Springfield, Mass.
Treas.—E. F. Lane, Keene, N. Y.
Clerk—J. H. Albin, Concord, N. H.

SUMMIT BRANCH—Lykens Valley R. R. to Summit Tunnel, Pa., 20.45 miles. Std. G.
Pres.—Geo. B. Roberts, Phila., Pa.
Vice Pres.—Frank Thompson, "
Gen. Mgr—Chas. E. Pugh, "
Gen. Supt.—Robt. Neilson, Williamsport, Pa.
Chief Eng.—W. H. Brown, Phila., Pa.
Asst.—J. T. Richards, "
Div. Eng.—J. R. Davis, Williamsport, Pa.
Sec.—S. W. White, Phila., Pa.
Treas.—Jno. S. Leib, Baltimore, Md.
Gen. Pass. Agt.—Jas. R. Wood, Phila., Pa.
Gen. Ticket Agt.—E. S. Harrar, Williamsport, Pa.
Gen. Bag. Agt.—F. J. McWade, Phila., Pa.
Gen. Freight Agt.—S. L. Seymour, Williamsport, Pa.
Pur. Agt.—A. W. Sumner, Baltimore, Md.
Supt. Motive Power and Mach.—A. O. Dayton, Williamsport, Pa.
Foreman Loco. Repairs—H. K. Stout, Sunbury, Pa.
Div. Supt.—E. B. Westfall, Williamsport, Pa.
Supv.—Jno. Townsend, Lykens, Pa.

SUNBURY & LEWISTOWN—Selingsgrove Junc. to Lewistown, Pa., 47.16 miles.
Pres.—Aaron Fries.
Sec. and Treas.—Frank S. Lewis, Phila., Pa.

SUNBURY, HAZLETON & WILKES-BARRE—Sunbury to Tomhickon, Pa., 50.95 miles.
Pres—J. N. Du Barry.
Treas.—Tabor Ashton, Phila., Pa.

SUNCOOK VALLEY—Suncook Village to Pittsfield, N. H., 22 miles.
Pres.—Samuel N. Bell, Manchester, N. H.
Treas.—Jas. A. Weston, "

SUSPENSION BRIDGE & ERIE JUNCTION—East Buffalo Junc. to Suspension Bridge, N. Y., 23.28 miles.
Pres.—Hugh J. Jewett.
Treas.—B. W. Spencer.
Sec.—A. R. McDonough, New York.

SUSSEX—Waterloo, N. J., to Franklin, N. J., 30.87 miles.
Pres. and Supt.—Andrew Reasoner, Hoboken, N. J.
Sec.—Fred. F. Chambers, New York.

SWEDESBORO'—Woodbury to Swedesboro', N. J., 11.2 miles.
Pres.—Samuel Black, Swedesboro.

SYRACUSE, CHENANGO & NEW YORK—(See Syaracuse, Ontario & New York).

SYRACUSE, GENEVA & CORNING—Corning, N. Y., to Geneva, N. Y., 57.75 miles. Std. G.
Pres.—Geo. J. Magee, Corning, N. Y.
Treas.—E. D. Worcester, New York.
Sec.—Daniel Beach, Corning, N. Y.
Principal office and address, Watkins, N. Y.

SYRACUSE, ONTARIO & NEW YORK—Syracuse, N. Y., to Earlville, N. Y., 45.49 miles. Std. G.
Pres.—Hon. Ashbel Green, New York.
Gen. Supt., Pass., Freight and Pur. Agt.—Albert Alten, Syracuse, N. Y.
Sec. and Treas.—Jos. P. Ord, New York.
Aud.—J. J. Farrell, Syracuse, N. Y.
Master Mech.—Ed. Sawyer, "
Road Master—Thos. Baigrie, "
Principal office and address, 15 Broad st., N. Y.

T.

TARKIO VALLEY—(See Kansas City, St. Joseph & Council Bluffs).

TAYLOR FALLS & LAKE SUPERIOR—(See St. Paul & Duluth).

TENNESSEE COAL—Tracy City, Tenn., to Cowan, Tenn., 28 miles. G. 5 ft.
Pres.—Jas. C. Warner, Nashville, Tenn.
Vice Pres.—Nat. Baxter, Jr., " "
Sec. and Treas.—Jas. Bowron. " "
Gen. Mgr.—A. M. Shook, Tracy City, Tenn.
Eng.—F. P. Clute, Tracy City, Tenn.
Master of Mach.—W. A. Knight " " "

TENNESSEE & PACIFIC—(See Nashville, Chattanooga and St. Louis).

TENNESSEE & SEQUATCHIE VALLEY—Tennessee River to Pikesville, Tenn., 42 miles. G. 3 feet.
Pres. and Gen. Mgr.—Chas. Clinton, Spring City, Tenn.
Vice Pres.—E. L. Mehner, Cincinnati, O.

Sec.—E. D. Albro, Cincinnati, O.
Treas. and Pur. Agt.—P. V. Mooney, Spring City, Tenn.
Supt. Motive Power and Mach.—Chas. E. Sampson, Spring City, Tenn.
Foreman Car Repairs—Seymour W. Robinson, Spring City, Tenn.
Road Master—Geo. W. Mitchell, Spring City, Tenn.

TENNESSEE SOUTHERN—Mississippi Line to Memphis, Tenn., 15 miles.
Pres.—R. T. Wilson.
Sec. and Treas.—C. H. Bosher.
Vice Pres. and Gen. Mgr.—J. M. Edwards.

TERRE HAUTE & INDIANAPOLIS—Indianapolis, Ind., to Illinois State Line, 389.15 miles. Std. G.
Pres.—W. R. McKeen, Terre Haute, Ind.
Gen. Supt.—Joseph Hill, St. Louis, Mo.
Asst. Eng.—A. J. Gibbons, Indianapolis, Ind.
Sec.—G. E. Farrington, Terre Haute, Ind.
Treas.—J. W. Cruft, " "
Aud.—W. S. Roney, " "
Gen. Pass. Agt.—E. A. Ford, Pittsburgh, Pa.
Asst. Gen. Pass. Agt.—J. M. Chesbrough, St. Louis, Mo.
Gen. Bag. Agt.—R. R. Bentley, Pittsburgh.
Gen. Freight Agt.—H. W. Hibbard, St. Louis, Mo.
Pur. Agt.—C. R. Peddle, Terre Haute, Ind.
Supt. Motive Power and Mach.—G. H. Prescott, Terre Haute, Ind.
Div. Master Mechs.—F. C. Cleaver, Terre Haute, Ind.; C. Butler, Effingham, Ill.
Master Car Bldr.—E. D. Carter, Terre Haute, Ind.
Master Trans.—N. K. Elliott, " "
Road Masters—M. Reedy, Effingham, Ill.; J. S. Brothers, Crawfordsville, Ind.; John Schofield, Brazil, Ind.

TERRE HAUTE AND LOGANSPORT—Logansport, Ind., to Rockville, Ind., 116 miles. Std. G.
Pres.—W. R. McKeen, Terre Haute, Ind.
Sec. and Transf. Agt.—Geo. E. Farrington, Terre Haute, Ind.
(Other officers same as T. H. & Ind. R. R. Co.)

TERRE HAUTE AND SOUTHEASTERN—Terre Haute, Ind., to Washington, Ind., 44.5 miles. Std. G.
Pres.—Jos. Collett, Terre Haute, Ind.
Gen. Supt. and Pur. Agt.—Geo. Atherton, Terre Haute.
Sec. and Treas.—J. S. Beach, " "
Sec., Aud. and Gen. Ticket Agt.—Jas. Tarrance, Terre Haute, Ind.
Road Master—James Murtaugh, " "

TEXAS CENTRAL—Ross, Tex., to Albany, Tex., 228.6 miles. Std. G.
Pres.—A. C. Hutchinson, New Orleans, La.
Vice Pres.—J. Waldo, Houston, Tex.
Sec.—H. Hall, " "
Treas.—E. W. Cave " "
Principal office, Ross, McLennon Co., Tex.

TEXAS MEXICAN—(See Mexican National)

TEXAS AND NEW ORLEANS—Houston Texas., to Orange (Sabine River), 208.67 miles. Std. G.
Pres.—C. P. Hutchinson, New York
Vice Pres.—J. F. Crosby, Houston, Tex
Sec. and Treas.—J. E. Gates, New York.
Gen. Mgr.—A. N. Towne, San Francisco.
Supt.—E. G. Thompson, Houston, Tex.
Gen. Ticket Agt.—F. W. Peirce, " "
Gen. Freight Agt.—C. C. Gibbs, " "
Mast. Mech.—A. C. Smith, " "
Principal office, 23 Broad st., New York city.

TEXAS & PACIFIC—Gouldsboro' to El Paso, Tex., 1,487 miles. Std. G.
Pres.—Jay Gould, New York.
First Vice Pres.—R. S. Hayes, St. Louis.
Second Vice Pres. and Gen. Solic.—John C. Brown, St. Louis.
Third Vice Pres.—H. M. Hoxie, "
Sec. and Treas.—C. C. Satterlee, New York.
Gen. Trans. Mgr.—A. A. Talmage. St. Louis.
Gen. Supt.—W. Cummings, Marshall, Tex.
Asst. Sec. and Treas.—D. S. H. Smith, St. Louis.
Gen. Aud.—C. G. Warner, St. Louis.
Gen. Ticket Agt.—F. Chandler, "
Gen. Pass. Agt.—H. C. Townsend, "
Gen. Traffic Agt.—Geo. Olds, "
Gen. Freight Agt.—W. H. Newman, Dallas, Tex.
Gen. Agt. Pass. Dept.—B. W. McCullough, Marshall, Tex.
Gen. Eastern Agt.—C. G. Eddy, New York.
Supt. Bridges—M. A. Martin. St. Louis.
Paymaster—H. Krentz, Marshall, Tex.
Pur. Agt.—R. B. Lyle, St. Louis.
Supt. Car Dept.—J. Hodge "
Supt. Telg.—C. W. Hammond, Marshall, Tex.
Land Com'r.—W. H. Abrams, " "
Supt. Mach.—O. A. Haynes, "
Supt. N. O. Div.—H. L. Magee, "
Supt. Eastern Div.—Geo. Dimick "
Supt. Rio Grande Div.—D. Flanigan, Big Springs, Tex.

TEXAS & PACIFIC DIVISION—Miles operated, 1,432. No. of locomotives, 143; passenger cars, 86; freight and miscellaneous cars, 3,356.
Second Vice Pres.—John C. Brown, St. Louis, Mo.
Sec. and Treas.—Chas. E. Satterlee, New York.
Supt.—Warder Cumming, Marshall, Tex.
Gen. Freight Agt.—H. W. Newman, Galveston, Tex.
Supt. of Mot. Power and Mach.—O. A. Haynes, Marshall, Tex.
Div. Supts.—Geo. Dimick, Marshall, Tex.; J. C. Barbery, Big Springs, Tex.; H. L. Magee, Marshall, Tex.
Train Masters—J. H. Redmon, Marshall, Tex.; J. W. Clawson, Marshall, Tex; E. G. Mower, Ft. Worth, Tex.
Div. Master Mechs.—Perry Stevens, Marshall, Tex.; J. C. Salisbury, Big Springs, Tex.
Mast. Car Bldr.—H. H. Sessions, Marshall, Tex.
Asst. Mast. Car Bldr.—E. E. Carver, "

Mast. Car Painter—H. S. Murff, Marshall, Tex.
Road Masters—L. L. Keller, Ft. Worth, Tex.; J. L. Turner, Marshall, Tex., M. McDonough, Marshall, Tex.

TEXAS & ST. LOUIS—735.21 miles. G. 3 ft.
Pres.—J. W. Paramore, St. Louis, Mo.
Recr. and Gen. Mgr.—W. R. Woodard, St. Louis, Mo.
Chief Eng.—C. F. Stephens, " "
Treas.—L. B. Fish, " "
Aud.—E. F. Walker, " "
Traffic Mgr.—W. P. Robinson, " "
Master Trans.—Harry Flanders, Tyler, Tex.
Pur. Agt.—C. S. Brooks, St. Louis.
Supt. of Motive Power—G. W. Prescott, "
Gen. Pass. and Ticket Agt.—A. C. Sheldon, St. Louis.
Gen. Bag. Agt.—L. J. Kraemer, Brinkley.
Gen. Freight Agt.—A.S. Dodge, St. Louis.
Gen Supt.—J. J. Frey, Pine Bluff, Ark.

TEXAS TRUNK—Dallas, Tex., to Sabine, Tex., 200 miles. Std. G.
Pres.—Samuel J. Adams, Dallas, Tex.
Vice Pres.—J. W. White, Nashua, N. H.
Gen. Supt., Pass., Freight and Pur Agt.—Hugh R. Irvine.
Sec. and Aud.—A. H. Stuart, Dallas, Tex.
Treas.—Alfred Davis, " "

TEXAS WESTERN—Houston, Tex., to Presidio del Norte, Tex., 900 miles. G. 3 ft.
Pres. and Recr.—S. K. McIlhenny, Houston, Tex.
Treas.—S. M. Rushmore, " "
Aud., Traffic Mgr. and Pur. Agt.—S. D. Moore, Houston, Tex.
Master Mech.—T. F. Glispin, " "

TIOGA—(See New York, Lake Erie and Western).

TIONESTA VALLEY—Sheffield, Pa., to Sheffield Junction, Pa., 15 miles. G. 3 ft.
Pres.—Walter Horton, Sheffield, Pa.
Vice Pres.,—Webb Horton, Middletown, N.Y.
Gen. Mgr.—Isaac Horton, Sheffield, Pa.
Gen. Supt.—Geo. Dickinson, " "
Sec.—Jerry Crary, " "
Treas.—Chas. Sigel, " "
Aud.—A. H. Bailey, " "
Gen. Pass. and Freight Agt.—Geo. Horton, Sheffield, Pa.
Pur. Agt.—J. H. Horton, " "
Chief Eng.—Frank Whittleton, Tionesta, Pa.
Div. Supt.—Lane B. Schofield, Sheffield, Pa.
Road Master—John Johnson, Brookston, Pa.

TOLEDO, ANN HARBOR AND GRAND TRUNK—(See Toledo, Ann Harbor and North Michigan).

TOLEDO, ANN HARBOR AND NORTH MICHIGAN—Toledo, O., to South Lyons, Mich., 104 miles. Std. G.
Pres.—J. M. Ashley, Toledo, O.
Vice Pres. and Act'g. Aud.—D. W. Munjo, New York.
Gen. Supt. and Pur. Agt—H.W. Ashley, Toledo.
Sec.—C. F. Cook, "
Treas.—B. F. Jervis.
Gen. Pass. and Freight Agt.—W. H. Bennett, Toledo.
Master Mech. and Car Bldr.—C. C. Dodge, Toledo.
Road Master—Henry Smith, East Milan P. O., Mich.

TOLEDO, CANADA AND SOUTHERN DETROIT—Toledo, O., to Detroit, Mich, 55.4 miles. Std. G.
Pres.—Jas. Tillinghast, Buffalo, N. Y.
Vice Pres.—E. A. Wickes, New York.
Treas.—C. Vanderbilt, "
Sec.—C. F. Cox, "

TOLEDO, CINCINNATI & ST. LOUIS—Toledo, O., to East St. Louis, Ill., 781.96 miles. G., 3 ft.
Pres.—E. B. Phillips, Boston, Mass.
Vice Pres.—Willard White " "
Recr.—W. J. Craig, Toledo, O.
Gen. Supt.—E. P. Murray, "
Sec. and Treas.—Herbert Steward, Boston.
Gen. Pass. Agt. and Aud.—C. S. Anthony, Toledo.
Gen. Freight Agt.—A. H. Snider, "
Pur. Agt.—F. W. Stewart, "
Supt. Motive Power and Mach.—L. W. James. Delphos, O,
Div. Master Mech.—W. H. Anderson, Dayton, O.; P. H. Murphy, Charleston, Ill.
Master Car Bldr.—J. S. Weirs, Delphos, O.
Chief Eng.—H. A. Young, Toledo, O.
Cashier—W. F. Aiken, "
Div. Supt.—W. H. Vandegrift, Delphos.

TOLEDO & INDIANAPOLIS—Ohio Central Junction, O., to Findlay, O., 41.5 miles. Std. G.
Pres.—J. P. Brown, Toledo, O.
Recr.—David Robinson, Jr., "
Supt.—M. J. Clark, "
Aud., Gen. Pass. and Freight Agt.—J. M. O'Boyle, Toledo, O.
Gen. Mgr.—Patrick Dowling, "
Sec.—C. A. Brown. "

TOLEDO, PEORIA & WESTERN—Indiana State Line to Warsaw, Ill., 283.17 miles.
Pres.—A. L. Hopkins.
Sec.—O. D. Ashley, New York.

TOLEDO & SOUTH HAVEN—Paw Paw, Mich., to Hartford, Mich., 15.6 miles. G. 3 feet.
Pres.—F. B. Adams, Lawton, Mich.
Supt.—John Ihling, " "
Chief Eng.—J. S. Cross, Bangor, Mich.
Sec.—Henry Ford, Lawton, Mich.
Treas.—Edwin Martin, " "

TONAWONDA VALLEY & CUBA—(See Bradford, Eldred & Cuba).

TORONTO, GRAY AND BRUCE—(See Canadian Pacific).

TRAVERSE CITY—Walton Junction, Mich., to Traverse City, Mich., 26.97 miles.
Pres.—Perry Hannah, Traverse City, Mich.
Treas. and Sec.—J. H. P. Hughart, Grand Rapids, Mich.

TROY AND BOSTON—Troy, N. Y., to Vermont State Line, 46.2 miles. Std. G.
Pres.—D. Robinson, Troy, N. Y.
Vice Pres.—S. B. Sanford, " "
Supt.—Joseph Crandell, " "
Sec.—S. M. Vail, " "
Treas.—J. Edward Merrill, " "
Aud. and Pur. Agt.—Chas. H. Hubbell, Troy, N. Y.
Gen. Pass. and Ticket Agt.—C. A. Nimmo, Troy, N. Y.
Gen. Bag. Agt.—J. S. Lineham, " "
Master Mech.—Z. B. Davis, " "
Master Car Bldr.—A. Brewer, " "
Road Master—S. L. Robinson, " "

TROY AND GREENBUSH—Troy, N. Y., to East Albany, 12 miles.
Pres.—E. Thompson Gale.
Treas.—J. B. Gale, Troy. N. Y.

TROY & GREENFIELD & HOOSAC TUNNEL—Greenfield, Mass., to State Line Vermont, 44 miles. Std. G,
Mgr.—A. W. Locke, North Adams, Mass.
Treas.—Austin Bond.
Eng. Maint. Way.—H. B. Potter.
Train Master—C. W. Purcell.

TUCKERTON—Whiting's Station, N. J., to Tuckerton, N. J., 31 miles. Std. G.
Pres.—A. R. Pharo, Tuckerton, N. J.
Vice Pres.—Rutherford Stuyvesant, New York.
Gen. Supt.—J. J. Pharo, Tuckerton, N. J.
Sec.—T. T. Price, " "
Treas.—Richard Ashhurst, Phila, Pa.
Aud.—Samuel Ashhurst, "
Gen. Pass. and Ticket Agt.—H. N. Gilson, Tuckerton, N. J.

TYRONE & CLEARFIELD—East Tyrone to Curwensville, Pa., 70.8 miles.
Pres.—J. N. Du Barry.
Treas.—Tabor Ashton Phila, Pa.

U.

ULSTER & DELAWARE—Rondout, N. Y., to Stamford, N. Y., 74 miles. Std. G.
Pres.—Hon. Thos. Cornell, Rondout, N. Y.
Vice Pres.—A. S. Staples, " "
Gen. Supt.—J. H. Jones, " "
Supt. of Trans.—A. E. Benson, " "
Sec. and Treas.—A. Benson, " "
Aud.—R. B. Jones, " "
Gen. Pass. and Freight Agt.—F. B. Hibbard, Rondout, N. Y.
Master Mech.—A. E. Benson, " "
Master Car Bldr.—J. H. Decker, " "
Foreman Car Repairs—James Cameron, Rondout, N. Y.
Master Car Painter—Chauncey Hotaling, Rondout. N. Y.
Road Master—J. H. Decker, " "

UNION PACIFIC.
Pres.—Chas. F. Adams, Jr., Boston.
Vice Pres.—Elisha Atkins "
Gen. Mgr.—S. H. H. Clark, Omaha, Neb.
Asst. Gen. Mgr.—Thos. L. Kimball, "
Chief Eng.—J. Blickensderfer, "
Sec. and Treas.—Henry McFarland, Boston.
Aud.—E. Young, Omaha.
Gen. Pass. Agt.—J. W. Morse, "
Gen. Ticket Agt.—C. S. Stebbins, "
Gen. Bag. Agt.—A. Traynor, Council Bluffs, Iowa.
Gen. Freight Agt.—P. P. Shelby Omaha.
Pur. Agt.—M. H. Goble, "
Supt. Coal Dept.—D. O. Clark, "
Supt. Motive Power and Car Dept.—I. H. Congdon, Omaha.
Asst. Supt. Motive Power and Car Dept.—John Wilson, Omaha.
Gen. Supts.—P. J. Nicholls, Omaha; E. Dickinson, Laramie, Wyom.; S. T. Smith, Kansas City, Mo.; A. A. Egbert, Denver, Col.; W. B. Doddridge, Ogden, Utah.
Master Car Painters—B. Stansbury, Omaha; J. C. Stout, Armstrong, Kan.
Supt. Bridges and Bldgs.—E. Lane, Omaha.
Div. Mast Mechs.—J. H. McConnell, North Platte, Neb.; J. O. Chapman, Armstrong, Kan.; F. Mertzheimer, Denver, Col.; T. A. Davis, Laramie, Wyom.; G.F. Chapman, Evanston, Wyom.; F. Reardon, Shoshone, Idaho.
Foreman Loco. Repairs—John S. Hicky, Eagle Rock, Idaho.
Supvs.—C. F. Newton, Omaha, Neb.; J. A. Weed, Evanston, Wyom.; J. M. Bennett, Pocatello, Idaho; J. S. Elk, Pocatello, Idaho; Jas. Parks, Denver, Col.; S. Mallison, Kansas City, Mo.

UPSON COUNTY—Barnesville to Thomaston, 16 miles.
Pres.—E. A. Flewellen, Opelika, Ala.

UTAH CENTRAL—Ogden, Utah, to Frisco, Utah, 280 miles. Std. G.
Pres.—Sidney Dillon, 195 Broadway, N. Y.
Vice Pres. and Gen. Supt.—John Sharp, Salt Lake City.
Chief Eng.—J. W. Fox, " "
Asst. Chief Eng.—X. W. Hardy, " "
Sec.—Geo. Swan, " "
Treas.—L. S. Hill, " "
Pur. Agt.—S. H. Hill, " "
Master Mech.—G. G. Bywater, " "
Master Car Bldr.—Peter Reed, " "
Master Car Painter—G. J. Bywater, " "
Gen. Pass. and Freight Agt.—Francis Cope.
Road Masters—J. Q. Leavitt, Salt Lake City; Jas. Latimer, Juab, Utah.

UTAH & NEVADA—Salt Lake City, Utah, to Terminus, Utah, 37 miles. G. 3 ft.
Pres.—Sidney Dillon. N.Y.C.
Vice Pres., Supt. and Pur. Agt.—W. W. Riter, Salt Lake City, Utah.
Chief Eng.—A. F. Doremus, " "
Sec.—C. E. Wurtele, Laramie City, Wyom.
Treas.—Jas. M. Ham, New York.
Gen. Pass. and Freight Agt.—S. F. Fenton, Salt Lake City, Utah.
Mast. Mech.—Robert Anderson, " "

UTAH AND NORTHERN—Ogden, Utah, to Butte, Montana, 461.96 miles. G. 3 ft.
Pres.—Sidney Dillon, New York.
Vice Pres.—Fred. L. Ames, Boston.
Sec.and Treas.—Henry McFarland, Boston, Mass.
Gen. Mgr.—S. H. H. Clark, Omaha, Neb.
Gen. Supt.—W. B. Doddridge, " "
Chief Eng.—J. Blickensdorfer, " "
Gen. Ticket Agt.—C. S. Stebbins, Omaha, Neb.
Gen. Freight Agt.—P. P. Shelby, " "
Master Mech.—I. H. Congdon, " "
Pur. Agt.—M. H. Goble, " "

UTICA & BLACK RIVER—Utica, N. Y., to Philadelphia, N. Y., 180.13 miles. Std. G.
Pres.—John Thorn, Utica, N. Y.
Vice Pres. and Gen. Mgr.—J. F. Maynard, Utica, N. Y
Gen. Supt. and Pur. Agt.—E. A. Van Horne. Utica, N. Y.
Asst. Supt.—H. W. Hammond, Carthage, N. Y.
Sec. and Aud.—W. E. Hopkins, Utica, N. Y.
Gen. Pass. and Freight Agt.—Theo. Butterfield, Utica, N. Y.
Master Mech.—John Bailey, " "
Master Car Bldr.—David James, " "
Road Masters—Geo. D. Egert, Utica, N. Y.; S. Bryant, Carthage, N. Y.; John F. Shea, Ogdensburgh, N. Y.

UTICA, CHENANGO AND SUSQUEHANNA VALLEY—Greene, N. Y., to Utica, N. Y., 115.45 miles.
Pres.—Samuel Sloan.
Treas.—Fred. H. Gibbons.
Sec.—Fred. F. Chambers, New York.
Asst. Supt.—A. C. Salisbury, Utica.

UTICA, CLINTON & BINGHAMTON—Utica, N. Y., to Randallsville, N. Y., 31.3 miles.
Pres.—Isaac Manard.
Sec. and Treas.—R. S. Williams, Utica.

UTICA, ITHACA AND ELMIRA—(See Elmira, Courtland and Northern).

V.

VACA VALLEY—Elmira, Cal., to Madison, Cal., 29 miles. Std. G.
Pres.—A. M. Stevenson, Vacaville, Solano Co., Cal.
Sec. and Treas.—W. V. Huntington, San Francisco, Cal.
Gen. Freight and Pur. Agt.—A. V. Stevenson, Vacaville, Cal.
Road Master—Joseph Young, Winters, Cal.

VALLEY—Pennsylvania State Line to Binghampton, N. Y., 24.71 miles.
Pres.—Samuel Sloan.
Sec. and Treas.—Fred. F. Chambers, New York
Supt.—W. F. Hallshead, Scranton, Pa.

VALLEY (O.)—Cleveland, O., to Valley Junc., O., 81.83 miles. Std. G.
Pres.—J. H. Wade, Cleveland, O.
Vice Pres.—David L. King, Akron, O.
Gen. Mgr.—Isaac Reynolds, Cleveland.
Sec. and Aud.—Wm. B. Potter, Cleveland.
Treas.—S. T. Everett. "
Gen. Pass. and Ticket Agt.—Robert A. Carran, Cleveland, O.
Pur. Agt.—H. Melcher.
Master Mech. and Car Bldr.—C. T. Johns, Cleveland, O.
Road Master—Thos. Delaney, Akron, O.

VALLEY (VA.)—Harrisonburg, Va., to Lexington, Va., 62 miles. Std. G.
Pres.—S. Spencer, Baltimore, Md.
Sec. and Treas.—W. H. Ijams.
Chief Eng.—J. L. Randolph.
Road Master—James W. Davis.
Principal office and address, Staunton, Va.

VERMONT AND CANADA—Essex Junc., Vt., to Rouse's Point, Vt., 65 miles.
Pres.—Albert Clarke, Boston, Mass.
Sec.—A. G. Safford, St. Albans, Vt.

VERMONT AND MASSACHUSETTS—Fitchburg to Greenfield.
Pres.—D. S. Richardson.
Treas.—Franklin L. Poor, State st., Boston.

VERMONT VALLEY—Bellows Falls, Vt., to Brattleboro', Vt., 24 miles. Std. G.
Pres.—A. B. Harris, Springfield, Mass.
Clerk and Treas.—J. H. Williams, Bellows Falls.
Asst. Treas.—Seth Hunt, Springfield.
Cashier and Paymr.—Geo. E. Frink, "
Gen. Bag. Agt.—Wm. E. Hill, "
Chief Eng.—E. T. Clark, "
Road Master—W. E. Clark, "
Supt. and Pur. Agt.—J. Mulligan, "
Asst. Supt.—J. E. Goodwin, Bellows Falls.
Gen. Freight Agt.—H. E. Howard, Springfield.
Gen. Ticket Agt.—C. H. Cram, "
Gen. Acc'nt.—W. G. McIntyre, "
Transfer Agt.—J. H. Williams, Bellows Falls.

VERNON, GREENSBURG & RUSHVILLE—Vernon to Rushville, Ind., 44.39 miles.
Pres.—Horace Scott.
Treas.—E. F. Osborne.
Sec.—Cortez Ewing, Greenbush, Ind.

VICKSBURG AND MERIDIAN—(See C., N. Or. & Texas R. R).

VICKSBURG, SHREVEPORT & PACIFIC—(See C., N. Or. & Tex. R. R. Co.)

VINELAND—(See Phila. & Reading).

VIRGINIA MIDLAND—Alexandria, Va., to Danville, Va., 412.7 miles. Std. G.
Pres.—Hon. A. S. Buford, Richmond, Va.
Vice Pres.—F. W. Huidekoper, "
Gen. Mgr.—Col. A. L. Rives. "
Asst. Gen. Mgr.—Major Payton Randolph, Richmond, Va.
Eng. and Supt.—W. M. S. Dunn, Alexandria, Va.
Asst. Eng.—F. I. Cabell, Lynchburg, Va.
Sec.—Col. L. W. Reid, Alexandria, Va.
Treas.—W. H. Marbury, "
Aud.—A. McLean, "
Traffic Mgr.—Sol. Haas, Richmond, Va.
Gen. Pass. Agt.—M. Slaughter, "
Gen. Freight Agt.—J. H. Drake, "
Master of Mach.—J. E. Waddey, Alexandria, Va.
Master Car Builder—J. T. Nalls, "
Master of Trans.—J. Fisher, "
Road Master—Paul R. Evans. "
Supvs.—David T. Bailey, Charlottesville, Va.; J. W. Hood, Lynchburg, Va.
Pur. Agt.—J. P. Minetree, Richmond, Va.

VIRGINIA & TRUCKEE—Reno, Nev., to Virginia, Nev., 53.7 miles. Std. G.
Pres.—D. O. Mills, Mills' Bldg., N. Y.
Vice Pres. and Supt.—H. M. Yerington, Carson City, Nev.
Sec.—E. B. Yerington, Virginia City, Nev.
Treas.—Agency Bank of Cal.
Aud.—Geo. T. Mills, Carson City, Nev.
Gen. Freight and Pass. Agt.—D. A. Bender, Carson City, Nev.
Pur. Agt.—Hume Yerington, "
Master Mech.—I. N. Fording, "
Master Car Builder—M. M. Hyde, "
Master Car Painter—D. R. Culp, "
Road Master—C. C. Atherton, "

W.

WABASH, CHESTER & WESTERN—(See St. Louis Coal).

WABASH, ST. LOUIS & PACIFIC—3,518.4 miles. G. Std. and 3 ft.
Pres.—Jas. F. Joy, Detroit, Mich.
Vice Pres.—A. L. Hopkins, New York.
Supt. of Trans.—H. K. Wade, St. Louis.
Chief Eng.—W. S. Lincoln, "
Consulting Eng.—R. Andrews, "
Treas.—D. S. H. Smith, "
Sec.—A. H. Calef, New York.
Aud.—D. B. Howard, St. Louis.
Traffic Mgr.—Jas. Smith, "
Gen. Pass. and Ticket Agt.—F. Chandler, "
Gen. Bag. Agt.—Geo. P. Maule, "
Gen. Freight Agt.—M. Knight, "
Pur. Agt.—H. H. Wellman. "
Gen. Master Mech.—Jacob Johann, Springfield, Ill.
Div. Master Mechs.—J. B. Barnes, Ft. Wayne, Ind.; W. H. Shelby, Moberly, Mo.; J. C. Nash, Des Moines, Ia.; M. Honness, Peoria, Ill.; W. Morris, Carmi, Ill.
Gen. Master Car Builder—U. H. Kohler, Toledo, O.; Div. Master Car Builders, R. M. Hemphill, Peoria, Ill.; C. S. Buck, Moberly, Mo.
Master Car Painters—James Looker, Toledo, O.; N. Neher, Springfield, Ill.; Herman Banta, Ft. Wayne, Ind.; Thomas Kay, G. G. Gunther, Moberly, Mo.
Div. Supts.—G. W. Stevens, Peru, Ind.; D. G. Moore, Asst., Cairo, Ill.; B. F. Mathias, Asst., Rantoul, Ill; E. N. Armstrong, Peora, Ill.; E. B. Hyde, Asst., Havana, Ill.; H. F. Clark, Springfield, Ill.; F. L. Thompkins, Asst., Forrest Ill.; F. D. Schemerhorn, Asst., Quincy, Ill.; R. S. Miner, Moberly, Mo.; E. Dresser, Asst., Stanberry, Mo.; C. F. Meek, Asst., Des Moines, Ia.
Road Masters—G. E. Cain, Decatur, Ill.; John Trerney, Moberly. Mo.; R. A. Houghton,

Defiance, O.; A. Adams, Lafayette, Ind.; O. Hickey, Asst., Layfayette, Ind.; G. W. Luar, Asst., Paris, Ill.; P. Ward, Asst., Mt. Carmel, Ill.; P. Sullivan, Peru, Ind.; Geo. Cain, Decatur, Ill.; J. A. Pierce, Asst., Jacksonville, Ill.; C. Melville, Asst., Havana, Ill.; J. McKeown, Asst., Litchfield, Ill.; Geo. Anthony, Asst., Decatur, Ill.; J. R. Speeler, Asst., Forrest, Ill.; S. H. Williams, Asst., Bement Quigan, Moberly, Mo.; P. Sullivan, Des Moines, Ia.
Supts. Bridges and Buildings—J. B. Mitchel, Peru, Ind.; J. E. Wallace, Springfield, Ill.; R. P. Lutes, Moberly, Mo.

WALDEN'S RIDGE—Oakdale Junc., Tenn., to Oliver's Springs, Tenn., 23 miles. G. 3 ft.
Pres.—C. A. Bulkley, New York.
Vice Pres.—D. A. Carpenter, Knoxville, Tenn.
Sec. and Treas.—E. F. Wiley, "
Principal office and address, Jenks P.O., Tenn.

WALLKILL VALLEY—Montgomery, N. Y., to Kingston. N. Y., 33.46 miles. Std. G.
Pres.—Edward F. Winslow, New York City.
Sec. and Treas—F. E. Worcester.
Gen. Aud.—J. W. Rainhart.
Traffic Mgr.—W. P. Robinson.
Supt. Motive Power—R. H. Soule.
Supt.—Geo. H. Cravens.
Gen. Ticket Agt.—Henry Monett.
Gen. Freight Agt.—B. H. Bail.
Pur. Agt.—P. S. Bemis.

WARE RIVER — Palmer to Winchendon, Mass., 54.07 miles.
Pres.—J. A. Rumril, Springfield.
Treas.—C. E. Stephens, Boston.

WARREN — (See Delaware, Lackawanna & Western).

WARREN & FARNSWORTH — Clarendon, Pa., to Vandergrift, Pa., 15.26 miles. G. 3 ft.
Pres.—M. Waters, Warren, Pa.
Vice Pres.—M. B. Dunham, "
Gen. Mgr. and Treas.—A. D. Wood, "
Sec.—J. P. Jefferson, "
Aud.—C. P. Wilkins, Clarendon, Pa.
Master Mech.—P. Savage, "
Road Master—L. W. Daly, "

WASHINGTON BRANCH — Relay House to Washington, D. C., 69 miles.
Pres.—Jno. W. Garrett,
Treas.—W. H. Ijams, Baltimore, Md.

WASHINGTON CITY & POINT LOOKOUT— Hyattsville to Shepherd, Md., 21.5 miles.
Pres.—S. T. Suit.
Treas.—Jno. C. New.
Counsellor—Geo. M. Robeson.
Chief Eng.—W. J. Wharton.
President's office, 413 Sixth st., N. W., Washington, D. C.

WASHINGTON COUNTY—(See B. &O.R.R.)

WASHINGTON, OHIO & WESTERN — Alexandria, Va., to Mt. Pleasant, W. Va., 325 miles. Std. G.
Pres.—Archer N. Martin, New York.
Supt.—S. M. Brophy, Alexandria, Va.
Chief Eng.—R. Bell, "
Sec.—C. E. Kimball, New York.
Treas.—H. D. Cooke, Washington, D. C.
Aud.—C. C. Coe, Alexandria, Vt.
Train Master—John A. Carr, "
Master Mech.—Wm. H. Mountjay, "
Master Car Bldr.—J. F. Harrison, "
Bridge Inspr.—G. W. Walker, "
Track Supv.—M. Murphy, "

WATERLOO AND MAGOG—Waterloo, Que., to Magog, Que., 33.1 miles. Std. G.
Pres.—Ralph Merry, Magog, P. Q.
Supt. and Pur. Agt.—J. B. Futvoye, St. Johns, P. Q.
Sec.—A. H. Moore, Magog, P. Q.
Road Master—C. Courville, South Stukely, P.Q.
Principal office, Waterloo, Que.

WAYCROSS AND FLORIDA—Waycross, Ga., to St. Mary's River, 35.7 miles.
Pres.—H. S. Haines.
Treas.—Wm. P. Hardee, Savannah, Ga.

WAYNESBURG & WASHINGTON—Washington, Pa., to Waynesburg, Pa., 28.3 miles. G. 3 ft.
Pres.—J. F. Temple, Waynesburg, Pa.
Vice Pres.—J. A. J. Buchanan, " "
Gen. Supt. and Pur. Agt.—C. E. Bower, Waynesburg, Pa.
Sec.—J. G. Ritchie, " "
Treas.—Miss L. J. Braden, " "
Aud.—J. T. Rogers. " "
Gen. Pass. Agt.—Julius Lemoyne, Washington, Pa.
Master Mech. and Car Bldr.—A. M. Kline, Waynesburg.
Road Master—M. Shannon. "

WELLAND—Port Dalhousie, Ont., to Port Colborne, Ont., 25 miles. Std. G.
Pres.—Thos. R. Merritt, St. Catharine's, Ont.
Sec.—H. D. Stead, London, Eng.
Treas.—C. A. F. Ball, St. Catharine's, Ont.
Gen Supt.—Wm. Pay, " "
Road Master—Wm. Toyn, " "

WELLINGTON, GRAY AND BRUCE—(See Grand Trunk of Can.)

WESTVILLE, BOLIVAR & ELDRED—Wellsville, N. Y., to Little Genesee, 20.62 miles.
Pres.—R. G. Taylor.
Treas.—B. W. Spencer, New York, N. Y.
Sec.—W. S. Bissell, Buffalo, N. Y.

WEST AND EAST—Lexington to Durant, Miss., 1,302 miles.
Pres.—Jas. C. Clarke.
Treas.—R. S. Charles.

WEST FELICIANA—Bayou Sara, La., to Woodville, Miss., 25.63 miles. Std. G.
Pres. and Gen. Supt.—J. B. McGehee, Woodville, Miss.
Sec. and Treas.—B. H. Wailes, " "
Master Mech.—J. A. Tilton, " "

WEST JERSEY—Camden, N. J., to Cape May, N. J., 188.8 miles. Std. G.
Pres.—Geo. B. Roberts, Phila., Pa.
Vice Pres.—W. J. Sewell, Camden, N. J.
Gen. Mgr.—Chas. E. Pugh, Phila., Pa.
Supt.—Jos. Crawford, Camden, N. J.
Chief Eng.—W. H. Brown, Phila.
Asst. Eng.—F. P. Abercrombie, Camden, N. J.
Sec. and Treas.—Wm. Taylor, Phila.
Aud. of Disb.—Thos. P. Davis, "
Aud. of Freight Recpts.—G. M. Taylor, "
Gen. Pass. Agt.—J. R. Wood, "
Div. Ticket Agt.—J. S. Hackett, "
Gen. Bag. Agt.—F. J. McWade, "
Gen. Freight Agt.—John S. Wilson, "
Pur. Agt.—Enoch Lewis, "
Gen. Supt. Motive Power.—Theo. N. Ely, Altoona, Pa.
Asst. Supt. Motive Power—H. S. Hayward, Jersey City, N. J.
Master Mech.—W. McAlister, Camden, N. J.
Road Foreman—W. Rickard, " "
Master Car Builder.—C. C. Williams, Camden, N. J.
Supv.—H. B. Bannard, Woodbury, N. J.

WEST JERSEY & ATLANTIC—Newfield to Atlantic City, 41.46 miles.
Pres.—Geo. Wood, Camden, N. J.

WEST PENN AND SHENAGO CONNECTING—Brancton to Butler, Pa., 21 miles.
Pres.—James T. Blair.
Treas.—I. D. Stinson, Greenville, Pa.

WEST VIRGINIA CENTRAL AND PITTSBURGH—Piedmont to Davis, W. V., 53 miles. Std. G.
Pres.—Henry G. Davis, Piedmont, W. Va.
Vice Pres.—S. B. Elkins, 92 Broadway, New York.
Gen. Mgr.—T. B. Davis, Piedmont, W. Va.
Gen. Supt.—W. E. Porter, " "
Acting Chief Eng.—Jas. Parsons " "
Sec.—E. W. S. Moore, Baltimore, Md.
Treas.—C. M. Hoult, 24 Second st., Balto.
Aud.—Neill Woodrow, Piedmont, W. Va.
Gen. Pass. and Pur. Agt.—Geo. W. Harris, Piedmont, W. Va.
Master Mech.—E. W. Lippincott, " "

WESTERN OF ALABAMA—Selma, Ala., to West Point, Ga., 138 miles. G. 5 ft.
Pres.—L. P. Grant, Atlanta, Ga.
Gen. Mgr. and Pur. Agt.—Cecil Gabbett, Montgomery, Ala.
Sec., Treas. and Aud.—H. M. Abbett, Montgomery, Ala.
Gen. Prass. and Freight Agt.—C. H. Cromwell, Montgomery, Ala.
Master Mech. and Car Bldr.—C. D. Wall, Montgomery, Ala.
Foreman of Loco. Repairs.—J. E. Warswick, Montgomery, Ala.
Foreman Car Repairs—J. W. Johnson, Montgomery, Ala.
Foreman Car Painters—Thos. Childerson, Montgomery, Ala.
Road Master—Geo. P. Hughes, " "

WESTERN AND ATLANTIC—Atlanta, Ga., to Chattanooga, 138 miles. G. 5 ft.
Pres.—Hon. Jos. E. Brown, Atlanta, Ga.
Vice Pres., Sec. and Treas.—W. C. Morrill, Atlanta, Ga
Gen. Supt. and Pur Agt.—R. A. Anderson, Atlanta, Ga.
Asst. Supt.—A. B. Bostick, " "
Gen. Pass. and Freight Agt.—Jos. M. Brown, Atlanta, Ga.
Master Mech.—M. L. Collier, " "
Master Car Bldr.—Wm. Kingon, " "
Master Car Painter—W. P. Moring, " "
Road Masters—M. H. Dooly, Atlanta, Ga.; H. A. Butler, Kenesaw, Ga.

WESTERN COUNTIES—Yarmouth, N. S., to Digby, N. S., 67 miles. Std. G.
Pres.—Hon. L. E. Baker, Yarmouth, N. S.
Gen. Supt.—James. Brignell, " "
Sec. and Treas.—James Went Bingey, Yarmouth, N. S.
Road Master—D. J. Murphy, " "

WESTERN MARYLAND—Baltimore to Williamsport, Md., 123.6 miles. Std. G.
Pres., Gen. Mgr. and Chief Eng.—J. M. Hood, Baltimore, Md.
Vice Pres.—Alex. Reiman, " "
Eng. and Road Master—J. E. Mathews, Baltimore.
Asst. Road Master—W. R. Straw, Union Bridge, Md.
Asst. Eng.—Geo. H. Coryell, Hagerstown, Md.
Sec.—John S. Harden, Baltimore.
Aud. and Gen. Ticket Agt.—J. D. Whittington, Baltimore.
Gen. Pass. and Freight Agt.—B. H. Griswold, Baltimore.
Pur. Agt.—R. J. Adair, "
Mast. Mach.—David Holtz, Union Bridge, Md.
Master Car Bldr.—J. H. Nussear, Union Bridge, Md.
Master Car Painter—E. W. Leeds, Union Bridge, Md.

WESTERN NORTH CAROLINA—Salisbury, N. C., to Paint Rock, N. C., 219.8 miles. G. 5 ft.
Pres.—A. B. Andrews, Raleigh, N. C.
Vice Pres.—Frank Coxe, 1730 Spruce st., Phila., Pa.
Second Vice Pres. and Gen. Mgr.—A. L. Rives, Richmond, Va.
Supt.—V. E. McBee, Salisbury, N. C.
Chief Eng.—J. W. Wilson, Morganton, N. C.
Sec. and Treas.—G. P. Erwin, Salisbury, N. C.

Aud.—John W. Daniel, Salisbury, N. C.
Gen. Pass. Agt.—M. Slaughter, Richmond, Va.
Asst. Gen. Pass. and Freight Agt.—W. A. Turk, Salisbury, N. C.
Traffic Mgr.—Sol. Haas, Richmond, Va.
Gen. Freight Agt.—J. H. Drake, "
Pur. Agt.—Joseph P. Minetree, "
Master Mech.—G. W. Gates, Salisbury, N. C.
Road Master—G. W. Payne, " "

WESTERN PENNSYLVANIA—Bolivar to Allegheny City, 134.79 miles.
Pres—J. N. Du Barry.
Treas.—Tabor Ashton.
Sec.—Albert Hewson, Phila., Pa.

WESTON & BUCKHANNON—Weston W. Va. to Buckhannon, 15.25 miles. G. 3 ft.
Pres.—J. M. Bennett, Weston, W. Va.
Vice Pres.—Isaac Jackson, Lane Lew, W. Va.
Sec. and Treas.—M. W. Harrison, Weston, W. Va.
Gen. Supt.—A. H. Kunst, " "
Supt. of Road—M. Cleary, " "
Supt. of Bridges—T. Connell, " "

WHEELING AND LAKE ERIE—Wheeling, W. Va., to Toledo, O., 169.4 miles. Std. G.
Pres.—John P. Kennedy, New York.
Recr. and Gen. Mgr.—M. D. Woodford, Toledo, O.
Chief Eng.—C. A. Wilson, "
Sec. and Aud.—S. H. Ayers, "
Cashier—A. H. Thorp, "
Gen. Pass. and Ticket Agt.—James M. Hall, Toledo, O.
Gen. Freight Agt.—A. G. Blair, "
Pur. Agt.—W. R. Woodford, "
Gen. Master Mech.—O. P. Dunbar, Norwalk, O.
Road Master—D. McEntaffer, "

WHEELING, PITTSBURGH & BALTIMORE—Wheeling, W. Va., to Washington, Pa., 32 miles. Std. G.
Pres.—J. B. Washington, Pittsburgh, Pa.
Treas.—W. H. Ijams, Baltimore, Md.
Sec.—W. W. Smith, Washington, Pa.
Chief Eng.—J. L. Randolph, Martinsburg, W. Va.

WHITEFIELD AND JEFFERSON—Whitefield Junc. to Bennett Landing, N.H., 10.68 miles. Std. G.
Pres.—Nath. R. Perkins, Jefferson, N. H.
Sec.—Samuel N. Bell, Manchester, N. H.
Treas.—Ed. E. Harlow, Boston, Mass.
Supt.—A. L. Brown, Whitefield, N. H.
Gen. Ticket Agt.—W. R. Brackett, Plymouth, N. H.

WHITE WATER—Harrison, Ind., to Hagerstown, Ind., 65 miles. Std. G.
Pres. and Gen. Mgr.—Elijah Smith, Boston.
Sec. and Treas.—Henry Parkman, "
Gen. Ticket Agt.—E. P. Campbell, Fort Wayne, Ind.
Gen. Freight Agt.—S. A. Wickel, Fort Wayne, Ind.
Gen. Supt.—W. W. Worthington, " "
Master Mech.—W. S. Morris, " "
Road Master—A. J. Stewart, " "
Principal office and address, Connersville, Ind.

WICOMICO & POCOMOKE—Salisbury, Md., to Ocean City, Md., 30 miles. Std. G.
Pres. and Gen. Supt.—S. Showell, Berlin, Md.
Sec. and Treas.—R. J. Henry, "
Road Master—S. McMullan, "

WILLIAMSPORT AND NORTH BRANCH—Hall's Station, Pa., to Bernice, Pa., 40 miles. Std. G.
Pres. and Gen. Mgr.—Benj. G. Welch, Hughesville, Pa.
Vice Pres.—Hewitt Bodine, "
Chief Eng.—W. A. Mason, "
Sec.—B. H. Welch, "
Treas.—C. W. Woddrop, "
Aud.—S. D. Townsend, "
Gen. Acc'nt.—J. S. Bailey, "
Mast. Mech.—Geo. Woodley, "
Road Master—Aleck Bubb, "

WILLIAMSTOWN & DELAWARE RIVER—Atco, N. J., to Glassboro, N. J., 18 miles. Std. G.
Pres.—Geo. DeB. Keim, Phila., Pa
Supt., Aud., Gen. Pass., Freight and Pur. Agt.—S. Garwood, Williamstown.
Sec.—Albert Foster, Phila., Pa.
Teas.—John Welsh, "
Road Master—F. Boogar, Williamstown, N. J.

WILMINGTON, COLUMBIA & AUGUSTA—(See Wilmington & Weldon).

WILMINGTON & NORTHERN—Wilmington, Del., to Birdsboro', Pa., 88.15 miles. Std. G.
Pres.—H. A. DuPont, Wilmington, Del.
Sec. and Treas.—P. S. Ermold, Reading, Pa.
Chief Eng.—J. H. Thompson, Wilmington, Del.
Supt.—A. G. McCausland, "
Aud.—T. B. Townsend, "
Ticket and Freight Agt.—L. A. Bower, "
Master Mech.—Geo. Rommel, "
Road Master—Jacob Gaus, Coatsville, Pa.

WILMINGTON & WELDON—Wilmington, N. C., to Weldon, N. C., 199 miles. Std. C.
Pres.—R. R. Bridges, Wilmington, N. C.
Vice Pres.—B. F. Newcomer and W. T. Walters, Baltimore, Md.
Gen. Mgr.—H. Walters, "
Gen. Supt. and Pur. Agt.—J. F. Divine, Wilmington, N. C.
Supt. Trans.—J. R. Kenley, "
Eng. Roadway—B. R. Dunn, "
Sec. and Treas.—J. W. Thompson, "
Aud.—W. A. Riach, "
Traffic Mgr.—Sol. Haas, Richmond, Va.
Gen. Pass. and Freight Agt.—T. M. Emerson, Wilmington, N. C.

Gen. Bag. Agt.—J. B. Hill, Richmond, Va.
Mast. Mech.—J. Bissett, Wilmington, N. C.
Master Car Builders—J. H. Davis, Wilmington, N. C.; W. H. Day, Florence, S. C.
Master Car Painter—B. F. Murphy, Wilmington, N. C.
Road Masters—John Barry, Wilmington, N. C.; A. N. Freeland, Sumter, S. C.
Inspector of Wood and Cross Ties—P. Laughlin, Marion, S. C.

WILTON—Nashua to Wilton, N. H., 17.54 miles.
Pres.—Sol. Spalding.
Treas.—Frank A. McKean.
Clerk—J. T. Greely, Nashua, N. H.

WINCHESTER & ALABAMA—(See N. C. & St. L. R. R.)

WINCHESTER & POTOMAC—Harper's Ferry to Winchester, Va., 34 miles.
Pres.—J. H. Sherrard.
Treas.—Wm. A. McCormich, Winchester, Va.

WINCHESTER & STRASBURG—Winchester to Strasburg, Va., 21 miles.
Pres.—Robert Garrett.
Treas.—W. H. Ijams, Baltimore, Md.

WINDSOR & ANNAPOLIS—Annapolis, N. S., to Windsor, N. S., 130 miles. Std. C.
Pres.—F. Tothill, London, Eng.
Gen. Mgr.—P. Innes, Kentville, N. S.
Asst. Gen. Mgr.—J. W. King, "
Chief Eng.—K. Sutherland, "
Sec.—W. R. Campbell, London, Eng.
Traffic Mgr.—John Carroll, Kentville, N. S.
Gen. Pass., Ticket Agt. and Aud.—B. Gifkins, Kentville, N. S.
Master Mech.—Wm. Yould, "
Master Car Painter—Wm. Grierson, "
Road Master—S. Travis, "

WINDSOR BRANCH—(See Windsor & Annapolis).

WISCONSIN & MICHIGAN—Ft. Howard, Wis., to Iron Mountain, Wis., 96 miles. Std. G.
Pres.—Jesse Hoyt, New York.
Vice Pres.—Jas. C. Spencer.
Treas.—Guido Pfister.
Sec.—E. Martiner, Milwaukee, Wis.

WISCONSIN & MINNESOTA—Abbotsford, Wis., to Chippewa Falls, Wis., 64.5 miles. Std. G.
Pres. and Treas.—Chas. L. Cobby, Milwaukee, Wis.
Vice Pres. and Sec.—Edwin H. Abbot, Milwaukee, Wis.
Gen. Mgr.—F. N. Finney, "
Supt.—W. E. Carroll, Stevens Point, Wis.
Aud. and Gen. Ticket Agt.—Jas. Barker, Milwaukee, Wis.
Gen. Freight. Agt.—T. H. Malone, "

WISCONSIN CENTRAL—Stevens Point, Wis., to Neenah, Wis., 450.23 miles. Std. G.
Pres. and Treas.—Chas. L. Colby, Milwaukee.
Vice Pres. and Sec.—Edwin H. Abbott, "
Gen. Mgr. and Chief Eng.—F. N. Finney, Milwaukee.
Div. Engs.—W. O. Seymour, Milwaukee; W. B. Agnew, Stevens Point, Wis.
Treas.—Chas. L. Colby, Milwaukee.
Aud. and Gen. Pass., Bag. and Ticket Agt.—James Barker, Milwaukee.
Gen. Freight Agt.—T. H. Malone, Milwaukee.
Pur. Agt.—E. K. Howes, "
Fuel Agt.—W. Peck, Menasha, Wis.
Master Mech.—W. A. Short, Stevens Point, Wis.
Foreman of Loco. Repairs—Alfred Owen, Stevens Point, Wis.
Foreman of Car Repairs—Wm. Cormack, Stevens Point, Wis.
Supts.—A. A. Allen, Milwaukee; G. T. Wiswell, Chippewa Falls, Wis.; P. Walling, Milwaukee; P. Renter, Chippewa Falls, Wis.
Road Masters—Wm. Hancock, Neenah, Wis.; B. Hall, Abbotsford, Wis.; M. Mahoney, Chippewa Falls, Wis.; P. Gallagher, Abbotsford, Wis.; Wm. B. Agnew, Stevens Point, Wis.; John F. O'Rourke, Chippewa Falls, Wis.

WISCONSIN, IOWA & NEBRASKA—Des Moines, Ia., to Cedar Falls, 106 miles. Std. G.
Pres.—R. T. Wilson, 2 Exchange Court, N. Y.
Vice Pres.—B. L. Harding, Des Moines, Ia.
Gen. Supt., Sec. and Pur. Agt.—Geo. C. McMichael, Marshalltown, Ia.
Aud.—W. L. Dickinson, Marshalltown, Ia.
Local Treas.—J. V. Johnson, "
Gen. Pass. and Freight Agt.—W. T. Block, Des Moines, Ia.
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